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THE PHONEMIC INTERPRETATION OF LONG CONSONANTS

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Is phonemic procedure arbitrary? It can be, but I submit that it need not be. If one defines a phoneme as 'one of an exhaustive list of classes of sounds in a language'¹, one admits an endless variety of treatments and the choice of one or another treatment is arbitrary. The ideal of exhaustiveness is not in itself sufficient to define a unique scientific procedure. But if we also take the ideals of simplicity and self-consistency, we have the basis for a non-arbitrary method, particularly in view of the essentially systematic nature of phonetic totalities. The aim of a phonemic analysis may then be stated as: the smallest number of elements having the largest number of permutations and the most systematic relationships. To attain this ideal, it is necessary to consider always the totality² of phenomena in the given language. A formulation as to any detail must be made on the basis of all pertinent and comparable data anywhere in the totality of the given phonetic system. In the present paper I propose to demonstrate this method in application to a selected type of phenomenon, long consonants, in different phonetic totalities.³

¹ Y. R. Chao, *Non-uniqueness of Phonemic Solutions of Phonetic Systems* 367 (Bull. of the Inst of History and Philology, Academia Sinica, 4.363-98). I do not wish to imply that Chao's definition is not justified; a definition must be broad to include the range of usage of this term, as was Chao's intention.

² The criterion of totality is mentioned by Twaddell (*On Various Phonemes*), LANG. 12.56. As I conceive totality, it involves material (sounds), permutations (combinations of sounds), and pattern (phonetic and permutational relationships of sounds).

³ The material on which this paper is based was taken from my own experience and from that of colleagues, and in a few cases from printed sources. In practically all cases, I have had the opportunity of checking the data with native informants. Colleagues to whom I am indebted include Prof. Sapir, Prof. Lipari, M. B. Emeneau, M. R. Haas, G. Herzog, J. Kepke, G. L. Trager, C. F. Voegelin. Printed Sources which need to be mentioned specifically are: Trubetzkoy, *Die Konsonantensysteme der ostkaukasischen Sprachen*, *Caucasica* 8.1 ff.; Voegelin, *Shawnee Phonemes*, LANG. 11.23-37; Swadesh, *The Phonetics of Chitimacha*, LANG. 10.345-62.

Forms are quoted in phonemic transcription, one symbol for each phoneme. The orthography is thus in terms of my conclusions regarding the phonetic system

A rigorous definition of long consonants is not necessary for the present purpose. I include any consonantal sound involving the maintenance of essentially the same articulating position and mechanism for a relatively protracted time, being long by reference to other sounds in the same language. A phonetic feature which generally has to be considered is syllabic treatment, whether the long consonant goes with one syllable (is unisyllabic) or with two (is ambisyllabic).

As in other phonemic problems, word division often plays a part. In this connection, the word is considered as a phonetic rather than as a semantic unit. For our purposes, *Antarctic* is two words (say, an unstressed proclitic and a stressed nuclear word) in the speech of everyone who syllabifies *Ant-arc-tic*, in spite of the semantic unity of the whole. Syllable division is one of the most common marks of word division (cp. Eng. *cease taking* : *ceased aching* : *see stakes*), but is of course not universally significant. In Hungarian, word division does not affect syllabication in normal speech (e.g. *dobd el* is syllabified *dob-del*), but the word stress on the first syllable marks the beginning of each new word. In some languages, word division has very limited phonetic significance; in Nootka, for example, the only phonetic difference to be made is that there is more likely to be a pause between words than between syllables within the word.

of each language, but I try to state all the pertinent phonetic and distributional facts in each case, and I trust the reader's judgment will not be influenced by my orthography. In the use of symbols, the aim was to follow general usage, but it was necessary to adapt the symbols to the requirements of the particular languages.

Since this paper was submitted there has appeared Trubetzkoy's *Die phonologischen Grundlagen der sogenannten 'Quantität' in den verschiedenen Sprachen*, *Scritti in onore di Alfredo Trombetti* 155-74 (Milano, Ulrico Hoepli, 1936). In the main, the conclusions agree. My emphasis is on the relative nature of all phonemics (see my last paragraph). Trubetzkoy (170) says: 'Bei den geminierten Konsonanten setzt die Zuordnung des Einsatzes und des Absatzes an verschiedene Silben (bezw. Moren) die gesonderte Existenz des Anfangs- und des Schlussteils voraus. Bei jenen "langen" Konsonanten aber, die dieser Bedingung nicht entsprechen, können Einsatz und Absatz nicht als verschiedene Punkte, sondern nur als ein Ganzes gewertet werden'. Such rules, it seems to me, cannot have general validity. There will be phonetic systems in which they are contradicted. I also cannot agree with Trubetzkoy's conclusion (173) that quantity as such plays no part in phonemics. If 'das Sprachgebilde ist ja zeitlos', then it cannot have syllabic division or distinction between beginning and end of sounds. And if it has not the phonetic feature of duration, then must it not also lack every other phonetic feature, including intensity, which Trubetzkoy does recognize? That length does not ordinarily occur as the sole phonetic differentia, I recognize.

It is to be expected that long consonants (or any other kind of phonetic complex) will have different phonemic status in different phonetic totalities. I have found the following phonemic types:

- I. Phoneme variants
 - 1. Free variants
 - 2. Positional variants
- II. Phonemically distinct entities
 - A. Sequences of like phonemes
 - 1. Sequences of identical phonemes (geminate clusters)
 - 2. Sequences of homorganic but not identical clusters
 - B. Distinct unit phonemes.

Not uncommonly, the same language has long consonants of different phonemic types; for example, English has long consonants both as positional variants and as geminate clusters, the two types being, nevertheless, completely distinct as to position and syllabic treatment.

I. LONG CONSONANTS AS PHONEME VARIANTS

It is a usual thing for phonemes to vary in length according to manner and tempo of speech. Free length variation of this type is identifiable by the fact that all the utterances are homonymous to natives. Sometimes such free variation applies more characteristically to consonants in certain positions. For instance, in Navaho, an intervocalic stop consonant after a short vowel, as *g* in *ligai* 'it is white', may be quite long, though it is often no longer than stops in other positions. Another interesting case occurs in Finnish, where syllabically final consonants in the initial syllable of the word, e.g. *k* in *üksi* 'one', may be quite long in slow speech. Incidentally, syllabic final consonants in Finnish are more fortis than syllabic initial ones.

Positionally conditioned length variants are illustrated in English liquids and nasals. The long variants occur in final position, e.g. *šə'n* (shun), *wɔ'r* (war), and before final voiced consonants, e.g. *šə'nd* (shunned), *wɔ'rd* (warred, ward), and the short variants occur in other positions, including the position before final voiceless consonants, e.g. *šə'nt* (shunt), *wɔ'rt* (wart). That the long consonants are not distinct phonemic entities, either single phonemes or phoneme combinations, is evident from the fact that there is no position within the word in which more than one type of liquid or nasal has to be recognized. The variation is parallel to and related with the length variation of vowels seen in *ple'* (play), *ple'd* (played), *ple't* (plate).

In Swedish, consonant length is bound up with vowel length. Both phenomena occur only in syllables having primary or secondary stress. Long consonants occur only immediately after short stressed vowels, which are in turn limited to this position. Long stressed vowels occur before short consonants and in final position. Examples⁴ with stressed short vowel followed by long consonant: *kat*¹ 'cat', *hug*^{2a} 'to chop', *fast* 'fast', *bin*^{2da} 'to bind' *ar*^{2m} *ban*^d 'bracelet'; examples with long stressed vowel in final position or followed by short consonant: *se*¹ 'to see', *tv*¹ 'two', *ta*^k 'roof', *jü*^{2ga} 'to prevaricate', *jü*^{1pt} 'depth', *afrika*^{1nsk} 'African', *ta*^{2vla} 'table'.⁵ It cannot be claimed that either consonant length or vowel length is primary, and so it is necessary to recognize both as manifestations of two rhythmic types applicable to stressed syllables: type (a) with short vowel and long consonant, and type (b) with long vowel and short consonant or no consonant. A third type, with short vowel and short consonant, occurs in unstressed syllables. Different combinations of stress, intonation, and rhythm type define seven different prosodic phonemes in the language.

II A.1. LONG CONSONANTS AS GEMINATE CLUSTERS

In English, long ambisyllabic consonants occur within the phrase at the juncture of two words, e.g. *šu*^t *ta*^g *gə*^r *z* (shoot tigers), or of a word and certain proclitics and enclitics, e.g. *ə*ⁿ *no*ⁿ (unknown), *se*ⁿ *nəs* (saneness), but never within the word proper. Such long consonants contrast with two phonetically different kinds of short consonants in the same position: word final consonant followed by initial vowel of the following word, e.g. *šu*^t *ɛ*^l *fə*ⁿ *t* *s* (shoot elephants); and word initial consonant preceded by final vowel of the preceding word, e.g. *si*^l *ta*^g *gə*^r *z* (see tigers). Since phonetically different short consonants occur in the same position, it is out of the question to think of the long consonant as a positional variant of the simple consonant. Phonetically, the long consonant sounds essentially like a word-final consonant followed by a word-initial consonant. The conditions of the particular phenomenon and of the phonetics as a whole are met, if we interpret the long con-

⁴ Raised ¹ indicates primary stress with falling pitch, ² indicates primary stress with rising pitch, indicates secondary stress. Stress mark after the vowel indicates that the vowel is long, stress mark after the first post-vocalic consonant indicates that the vowel is short and the consonant long.

⁵ Examples like the last three show that long vowels may be followed by more than one consonant, and contradict the rule given in Björkhagen, *Modern Swedish Grammar* 34: 'In a stressed syllable the vowel is long if it is followed by one consonant. The vowel is short if it is followed by more than one consonant.'

sonants as clusters of two identical consonants, in every other respect comparable to non-geminate clusters in the same position, e.g. *-k t-* in *kv'k ta'garz* (cook tigers).

The process followed in coming to this simple conclusion may seem unnecessarily roundabout. It may appear simpler to reason that the long *t* is *-t + t-* because *šu't ta'garz* consists of *šu't + ta'garz*. While the results are the same in this case, process does not always have this simple relation to resulting form. For instance, there are a few cases in English where *t + t* results in single *t*, e.g. *ga'tə < ga't + tu* (as in 'I've got to go'). In many languages, sandhi changes are quite extensive, and there is no means by which one may know in advance where sandhi changes will or will not be found. It follows that consideration of the elements in morphological or syntactic composition cannot serve as a dependable method of inductively determining phonetic pattern. A thorough and careful examination of each detail in terms of the totality remains the only effective method.

Chitimacha ambisyllabic long stops, occurring in word-juncture, e.g. *pu'p pušna* 'rabbit's heart', are phonetically different from geminate stops of medial position, the latter being pronounced with a fully released and heavily aspirated stop preceding the second stop, e.g. *kappa* 'light'. But pre-consonantic stops are always heavily aspirated within the word, e.g. *p* in *wopki* 'he heard me', or *t* in *natma'i* 'he told him', while final stops are regularly not aspirated, e.g. *pu'p te'ti'i* 'the rabbit said'. Thus, *-pp-* is a fully characteristic instance of stop + stop in medial position, and *-p p-* is just as characteristic an instance of stop + stop in word juncture.

Finnish has ambisyllabic long consonants in the juncture of syllables within the word, e.g. *euoppa* ('Europe'). Such long consonants are often shorter than some cases of unisyllabic long consonants in syllabic final position (see above), but are always distinctive by their ambisyllabic character. In this they share a regular feature of Finnish consonant clusters. The ambisyllabic consonants conceived as geminate clusters come within regular classes of clusters (e.g. stop + stop, nasal + nasal). The pronunciation is essentially the same as that of other clusters. So all indications point to the interpretation of the ambisyllabic long consonants as geminate clusters. A final corroboration lies in the fact that there are certain consonants, *v d j g*, which do not occur in syllabic final, and it is precisely these which do not occur double.

Geminate clusters pronounced as long consonants are not necessarily medial and ambisyllabic. In Hungarian and modern Arabic, long

consonants contrasting with short consonants and comparable to other consonant clusters occur at the end of words; Hungarian example: *jobb* 'better', contrast *žeb* 'pocket', compare *dobd* 'throw it!'. Initial long geminates may be illustrated from Czech, e.g. *k kra·lu* 'to the king', *s silou* 'with strength', or Berber,⁶ e.g. *ggɛn* 'to sleep'—habitative.

Sometimes long consonants conceived as geminate clusters involve a phonetic specialization of the first of the pair of phonemes. Thus, Arabic *t k* are ordinarily aspirated when they occur in syllabic final, e.g. *k* in Egyptian Arabic *dakta·b* 'this is a book'. If they retained this characteristic in geminate clusters, there would result two completely separate articulations with aspiration between. In the pronunciation of *tt kk* as long consonants, the first stop is given a special phonetic variant (unreleased fortis stop). But the occurrence of special phonetic variants in given positions is one of the most characteristic phenomena of phonemics, and does not invalidate a fact that is otherwise clearly evident.

In some languages, long consonants conceived as geminate clusters involve types of clusters which do not occur otherwise. Italian has ambisyllabic long consonants occurring between vowels or between a vowel and a liquid, e.g. *fa'tto* 'done', *matti'na* 'morning', *spe'ttro* 'spectre'. This phonic type contrasts with unisyllabic syllabic-initial short consonant in the same position, e.g. *fa'to* ('fate'), *mati'ta* 'pencil', *tea'tro* 'theatre'. There is an ambisyllabic long consonant for practically every consonant in the language, but only five consonants, *m n l r s*,⁷ occur in syllabic final outside of clusters. Since these also occur initially in the syllable (along with all other single phonemes and a number of clusters including *s + stop*, *stop + r*, etc.) there is no difficulty in establishing that *mm nn ll rr ss* are geminate clusters. To relate the other long consonants to these cases, one may proceed by comparing such sets of words as *a'nno* 'year':*kua'nto* 'how much?': *a'tto* 'act'. All three medial complexes have in common the fact that they are ambisyllabic. The first two are phonetically alike in their first half, the last two are phonetically alike in their last half. The second half of *tt* in *a'tto* is rather clearly *t* and it is clear that some syllabically final consonant precedes it. That consonant is equatable to no other syllabi-

⁶ Meinhof, *Die Sprachen der Hamiter* 87 ff. (Hamburg, L. Friederichsen 1912)., Meinhof does not tell how the geminates are pronounced.

⁷ According to Grandgent and Wilkens, *Italian Grammar* 6 (Boston, Heath, 1915), *s* in groups of *s + consonant* goes with the following syllable. That this traditional rule is incorrect was brought to my attention by Prof. A. Lipari.

cally initial consonant than *t*. There being furthermore no contradictory evidence, *-tt-* is seen to be *t + t*, and *t* has to be defined as a consonant phoneme that occurs freely in syllabic initial position and in syllabic final only in the geminate cluster. The same positional limitation applies to all Italian consonants except *m n l r s*.⁸

It is important to recognize the great difference in pattern between the different languages treated in this section. They are alike in that, within the pattern of each language, the long consonants constitute geminate clusters. But they are different to a remarkable degree even with reference to the very criteria by which their geminate nature is determined. These criteria may be stated in general terms as follows: if long consonants are to be classed as clusters, (1) they must contrast with the corresponding single consonant in at least some positions; (2) they must have some of the characteristic features of other clusters; (3) the treatment must not conflict with the identification of other complexes as geminates.

The third criterion has not been used in the discussion so far, but is necessary because long consonants may be non-geminate clusters, as is shown in the next section. In such a case as Italian *o'žž'i* ('today'), two hypotheses are suggested for the syllabic-final first consonant: that it is *d*, that it is *ž*. Phonetically the long consonant in question has the articulating position of *ž*. Moreover, we have seen that syllabic-final consonants in Italian are restricted to *m n l r s* except that any consonant may occur in syllabic final before an identical syllabic-initial consonant; this identifies the first consonant in *o'žž'i* as *ž*.

II A.2. LONG CONSONANTS AS NON-GEMLATE CLUSTERS

English *-d ž-* in *gu'd ža'b* (good job) is pronounced either with a characteristic *d* closure followed by a shift of articulating position to the *ž* position, or with a single long closure in the *ž* position. The latter pronunciation is similar to that of Italian, *o'žž'i*, but English pattern differs in a number of ways from that of Italian. First, there is a considerable amount of accommodation of phonemes to surrounding ones in

⁸ G. L. Trager informs me that palatalized *n_j l_j* are always long in medial position. These long medials are then in complementary distribution with the short initial *n_j l_j*. The situation presents an interesting complication, since complementation is one of the characteristics of positional variants. If the rest of the system supported it, we could consider the long and short sounds as phonemically equivalent. As it is, consistency with the great preponderance of cases requires that long medial *n_j l_j* be considered geminate clusters: *n_j l_j* are defective, occurring only initially (in rather few words) and in medial geminate clusters.

English; a *d* pronounced in the *ʒ* position before a *ʒ* in English is quite in keeping with the normal tendency. Secondly, English clusters are not limited in the way that clusters are limited in Italian. Finally *-d ʒ-* in English contrasts with the doubly released cluster in *nə'ʒ ʒa'n* (nudge John); the latter cluster is clearly *-ʒ ʒ-* and so the former can be only *-d ʒ-*.

In Muskogee, *t* and *c* are articulated in virtually the same position, so there is nothing in the articulating position to indicate whether the first part of *tc* in *totci'nin* 'three' is *t* or *c*. Furthermore, there is no contrasting *cc* that I have been able to find. However, it is a general feature of Muskogee consonant clusters, including geminate clusters, that they do not involve special variants for either of the component phonemes. If, then, there were a *cc*, one would expect an affricative pronunciation of the first *c* as is normal in syllabic final position, e.g. *icki* 'mother'. The fact that there is no affrication in the first part of *tc* is therefore a good pattern indication that it is *t* rather than *c*.

Sanskrit *-dd-* of *budd'a* 'awakened', doubtless pronounced as a long ambisyllabic dental closure with aspirated release, consists of *d* followed by *d'*. The only other likely hypothesis, that this cluster might be *d'd'* with a special variant for the first *d'*, has to be rejected on account of the general rule of Sanskrit that aspirated stops never occur before other stops.

In Shawnee, long consonants (*tt* and *kk*) occur only in positions where other clusters occur, and in rapid speech there is nothing to prevent their being classed as geminate clusters. But there is a complication in slow speech. Most long consonants of rapid speech are replaced by doubly articulated consonants (with strongly aspirated first consonant) in slow speech, but there are a few exceptions, e.g. *nowikkato* 'three years', *noorta* 'I arrive at it'. The doubly articulated sounds are clearly geminate *kk* and *tt*, so the exceptional long stops of slow speech cannot be considered geminates. There are two ways of treating them: (1) to recognize a set of defective long and ambisyllabic consonant phonemes limited to a few words; or (2) to recognize a defective *κ* and *τ* characterized by the lack of the normal aspirational release and occurring only in syllabic final before homorganic stops of the next syllable. The second formulation is perhaps the better because it recognizes the fact that the second half of the long consonant is phonetically like the normal syllabic initial stop, and because it is in keeping with the fact that ambisyllabic consonants are not found otherwise in the language.

Another type of non-geminate long consonant is that which results

in such a case as *kæ'č š'i'p* (catch sheep). The affricative element of *č* with the homorganic fricative *š* gives the effect of an ambisyllabic sibilant, a little longer than *š* alone.

II B. LONG CONSONANTS AS DISTINCT UNIT PHONEMES

I have found no cases in which length is the only differentiating feature of distinct unit phonemes⁹. The feature of length is often associated with differences of voicing, of force of articulation, of aspiration¹⁰. For present purposes, it will perhaps be sufficient to take two cases in which length is a prominent differentiating feature.

Tabasaran, along with many other Caucasian languages, differentiates a strong and a weak series of consonants. The stronger consonants are fortis and, especially in intervocalic position, long; the lenis consonants are short. These are the only differences in the case of the spirants, but in the case of stops there is the further differentiation that the weak consonants are also aspirated. The strong consonants occur in many of the positions in which the weak consonants occur, e.g. *xoj* 'dog', contrast *xoj* 'oath'; *kum* 'nail, head', contrast *kum* 'smoke'; *jak* 'ram', contrast *wak* 'light'; *tatar* 'hands'; contrast *tatar* 'Tartars'. Consonant clusters do not occur initially and clusters of more than two consonants, except those involving one or two liquids or nasals or semivowels, e.g. *qarq'linč'a* 'lightning', do not occur anywhere in the word. It is thus impossible to take the strong consonants to be clusters in many cases, e.g. *xoj*, *jak*, *dust* 'friend', *ašp'az* 'cook'. Being neither positional variants nor clusters, the Tabasaran strong consonants must be distinct unit phonemes.

In Malayalam¹¹, the strong consonants are noticeably longer and very much more fortis than the weak consonants; they are limited in occurrence to medial position between vowels and after lateral and rolled continuants. They are often, but not always, ambisyllabic, depending on the rhythm of the word. There is a tendency to break long words into rhythmic groups of syllables, each consisting of two syllables;

⁹ Trubetzkoy reported this situation in liquids and nasals in some Caucasian languages, but these sounds are geminates rather than unit phonemes, as Trubetzkoy (op. cit. 171) now recognizes.

¹⁰ See S. Einarsson, *Parallels to the Stops in Hittite*, *LANG.* 8.177-182.

¹¹ A Dravidian language of southwestern India. The facts are given for common Malayalam. Elegant Malayalam, employing many Sanskrit and English words, has a considerably larger number of phonemes and allows a whole new set of consonant clusters. In consequence, the case of the strong consonants is more complicated, but they have the same status of independent unit phonemes.

within the syllable group the strong consonants tend to be ambisyllabic, at the beginning of a group they go entirely with the following syllable (thus, in the imaginary words *ananap'a*, *ap'anana*, *anap'ana*, *p'* is ambisyllabic in the first two cases but not in the last one). Weak consonants, always short and very lightly articulated,¹² are less restricted in position of occurrence. The two types share the intervocalic and the post-lateral positions, e.g. *pa'kə* 'to plant', *pa'k'ə* 'arrack nut'; *nalkun'u* 'to present', *nu'lk-un'u* 'to spin'. The strong consonants are different from clusters in that clusters are always ambisyllabic and do not occur after continuants (that is, there are no clusters of three consonants). The strong consonants cannot be counted either as positional variants of weak consonants nor as clusters of weak consonants. They are distinct unit phonemes, even though they do not occur initially in the word.

The criteria by which long consonants are to be classed as distinct unit phonemes are: (1) they must contrast with the corresponding short consonants in at least some positions; (2) they must have the general characteristics of single consonants rather than of consonant clusters.

The general criterion of phonemics is relativity within the totality of the given language. Sounds must be classified according to similarities of phonetic and permutational characteristics. If in this procedure we seek to find the maximally simple, self-consistent, and complete total formulation, we reduce the subjective element in phonetics. Trying to be objective is not likely to succeed fully without an intelligent understanding of the nature of phonetic systems and a constant effort to see each detail in its relation to every other detail. There is a real danger that pattern-conscious investigators may distort the facts in order to make the pattern seem more symmetrical, but this danger is small in comparison with the danger of distorting or failing to notice facts because of giving no attention to pattern.

¹² In medial position, they tend to be partly voiced and spirantal.

\bar{E}^2 AND *EU* IN GERMANIC STRONG PRETERITES OF CLASS VII

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Despite all that has been written on the subject, it is still an open question whether the prevailing types of strong preterites of class VII in NGmc. and WGmc., as OIc. *hét, hlióp, helt, fekk, lét, blét*, etc., have a common origin with Gothic reduplicated preterites of the types *hathait, aiáuk, hathald, faifāh, lailōt, halthōp*, etc., or descend from IE unreduplicated formations, in particular lengthened-grade aorists. In recent decades this problem has come to be involved with another one, namely the origin of the pt. pl. stem in classes I–V of the strong verb, above all in classes IV and V for Germanic as a whole, and probably most scholars who accept unreduplicated formations as the source of the forms in the category first mentioned do so for the forms in the latter categories also. It is not proposed in this paper to restate the arguments that have been put forward in support of this view,¹ or in refutation thereof,² but rather, tentatively assuming its general correctness, to reconstruct in chronological order the various developments which the theory seems to require if it is to be brought into detailed correspondence with the known NGmc. and WGmc. forms which it purports generally to explain.

For this purpose, it is convenient to group the verbs of class VII according to their present vocalism into the following subclasses, roughly paralleling classes I–VI: 1, type **hailan*; 2a, type **hlaupan*; 2b, type **būan, *snūan*; 3a, type **haldan*; 3b(α) type **fanhan > *fāhan*; 3b(β) type **bannan*; 4, type **arjan*; 5a, type **lātan*; 5b, type **sājan*; 6a, type **blōtan, *wōpjan*; 6b, type **grōjan*. In the NGmc. and WGmc. preterites of class

¹ Especially: Ljungstedt, *Anmärkningar till det starka preteritum i germanska språk* (1887); Brugmann in IF 6. 89 ff; Wood, *The Reduplicating Verbs in Germanic*, in: *University of Chicago Germanic Studies* ii (1895); Prokosch, JEGPh 20. 468–90, particularly 485 ff.; Sverdrup, *Der Aorist im germanischen Verbalsystem und die Bildung des starken Präteritums*, in: *Festskrift til Hjalmar Falk*, Oslo 1927 (296 ff.).

² Especially: Karstien, *Die reduplizierten Perfekta des Nord- und Westgermanischen*. Giessen, 1921.

VII vocalisms descending from PGmc. \bar{e}^2 and $*eu$ are considerably, though not exclusively, in evidence, and throughout the dialects involved there is virtually complete uniformity in the use of \bar{e}^2 -vocalism in preterites of subclass 1 (Olc. *hét*, OE, OS *hēt*, OHG *hiaz*), and eu -vocalism in preterites of subclass 2a (Olc. *hlióp*, OE *hlēop*, OS *hliop*, OHG *liof*). On the now current view that IE $\bar{e}i >$ PGmc. \bar{e}^2 , whereas every other IE long diphthong develops in Germanic as would the corresponding short diphthong, the adherents of Brugmann and Wood generally derive the pt. $*hē^2t$ of subclass 1 from IE $*kēid-$, beside present $*haitan$ from $*kaid-$ (or $*koid-$?), and the pret. $*hleup$ of subclass 2 from IE $*klēub-$, beside present $*hlaupan$ from $*klaub-$ (or $*kloúb-$?). In subclasses 1 and 2, then, there can be set up under our theory a fairly normal ablaut relation between the vocalism of the present and that of the preterite and in view of the uniform distribution just mentioned it is generally held that \bar{e}^2 and eu stand quite suo jure in these two subclasses respectively. In none of the other subclasses, however, is the present vocalism of such a nature as to permit the theoretical justification of an ablaut grade \bar{e}^2 or eu in the preterite, and not only does the distribution of these vocalisms differ a good deal in the different dialects, but there are some preterites whose vocalism seems to descend neither from \bar{e}^2 nor eu . Lastly, in a number of classes more or less isolated forms occur which, although showing considerable analogical distortion, quite obviously descend from reduplicated forms akin to the Gothic preterites.

Let us now examine briefly the preterites of our several subclasses.

1. Type $*haitan$. Perf. Gmc. $*hehait$, etc. $>$ Goth. *hathait* and (with different ablaut grade of stem) the probable OE $*hēht > *heoht > *hi(e)ht$ underlying ME *hiȝt*; literary OE *heht* has probably \bar{e} through contamination with *hēt* (see below). Aor. (or unreduplicated perfect?): (1) Gmc. $*hē^2t >$ OSw. *hæt*³, Olc. *hét*, OE *hēt*, OFrs. *hēt*, *hīt*⁴, OS *hēt* (and in texts showing Franconian influence *hiet*), OHG *hiaz*. (2) With intrusive eu -vocalism (from subtype 2, cf. below), late OHG (primarily Alemannic) *hioz* etc. (citations in Schatz, Ahd. Gr. 455, end); also a few early ME or slightly later West Midland forms: *beheot*, Vespasian Homilies (EETS 34) 225, 26; *heoten* La3. A 9629; *heote* La3. B 2660, in all of which the traditional orthography *eo* may denote [ō], the EME continuant of OE $\bar{e}o$.⁵ (I do not include here OE *swēop*, the regular preterite of *swāpan*, because it seems clear that the vocalism of this

³ Noreen, Asw. Gr. §114, 1.

⁴ Steller, Abr. d. afrs. gr. §14.

⁵ Jordan, Mengl. Gr. §84.

preterite, like that of the past participle *swopen* Rushw. Mt. 12, 44, is due to the analogy of *wēpan*, subclass 6a, an analogy operating solely because of the similarity in consonantal structure existing between the two verbs, and having nothing to do with intrusive vocalism as such.)

2a. Type **hlaupan*. Perf. Gmc. **h(l)eh(l)aup*, **s(t)es(t)aut* Goth. *hathlāup*, OHG *sterōz*. Aor. (1) Gmc. **hleup* > OIc. *hlióp*, OE *hlēop*, OS *hliop*, OHG *liof* (and Upper German *liuf*⁶). Van Helten in PBB 19. 405 ff. speaks of an OWFr. *hliop* ('für die Belege s. *hlioep* in dem von Hettema in J nicht abgedruckten teil des Ms. s. 7, *hlioep* opt. S 494, 18; 21'; the form is not cited in the brief grammars of Heuser and Steller), the vocalism of which he maintains cannot go back to Gmc. *eu*, which had earlier become OWFr. (and OEFrs.?) *iā*, and to this point he returns in PBB 21. 445 ff. as an insuperable objection to Brugmann's theory; yet the late date of the OFrs. documents will hardly justify one in making these few citations a touchstone. (2) With intrusive *ē*-vocalism, OEFrs. *hlēp*, *hlīp*, OHG (Otfrid) *liaf*.

2b. Type **būan*, **snūan* (these, apart from being 'verba pura', are apparently related to the type **hlaupan* much as are the 'aorist-presents' **lūkan* etc. to the type **keusan* in class II). Perf. Gmc. **s(n)ez(n)ō(-w?)* > OIc. *snera*. Aor. Gmc. **beu(-w?)* > OIc. *bió*.

3. The various subtypes belonging here all show a stem-final consonant group which in most cases at least was probably originally confined to the present system, as this grouping is normally due to the presence of some formant. Brugmann in IF 6. 94-5 holds that in PGmc. times these stem final groups had not yet been extended to non-present stems, and hence sets up beside the presents **fallō* (< **falnō*), **fayxō* such preterites as **fāl*, **fēz*, which later became **fē²l*, **fē²z* on the analogy of the preterites of subclass 1, and still later **fē²ll*, **fē²ng* by extension of the stem-final group seen in the present, these last ultimately undergoing a shortening to *fell*, *feng* in some areas. But we can dispense with this complicated series of developments by assuming that the extension of the stem-final groups to the non-present stems antedated the development of Gmc. *ē* < IE *ē* and thus permitted the *ēl* + *x*, *ēn* + *x* sequences now newly established to follow the same line of development as did inherited long diphthongs, i.e., to become *ēl* + *x*, *ēn* + *x* (later **inx*): as regards occasional OHG *-fiegun* etc., neither Braune⁷ nor Schatz⁸, though they differ somewhat in their explanations,

⁶ Braune, Ahd. Gr. §47 b.

⁷ Braune, Ahd. Gr. §350 anm. 7, end.

⁸ Schatz, Ahd. Gr. §§281, 458.

regards these forms as survivals from a period prior to the extension of stem-final groups to non-present stems.

3a. Type **haldan*. Perf. Gmc. **hehald* > Goth. *haihald*. Aor. (1) Gmc. **held* (cf. above) > OSw. *hælt* (and *hiolt* with intrusive *io* from the pl., where it is due to *u*-breaking), OIc. *helt*, OE *hēold* (if the form be so taken, the breaking will be analogical, following such a form as *wēolc*, in which breaking of Gmc. *e* is regular: the convention of printing *hēold*, as also *bēonn*, *fēng*, etc., has arisen from a predilection for theories which derive these forms from Gmc. **hehald* and the like by way of contraction; there is no direct evidence in their favor as against *hēold*, *fēng* (on this important point cf. Sievers, *AgS. Gr.* §§81, anm. 1; 395, anm. 1; 396, anm. 1.), nor can anything be learned from the study of their ME continuants, owing to LOE lengthening before *ld*, *ng*⁹ etc. and shortening before doubled consonants¹⁰; e.g., both *hēold* and *hēold* would give EME *hōld*, later *hēld* with possible subsequent shortening, while both *fēoll* and *fēoll* would give EME *fōl(l)*, later *fell*, OS *held* (MLG *hēld* can be accounted for by assuming lengthening before *-ld*). (2) With intrusive *ē*²-vocalism, OFrs. *hēld*, *hīld*, OS (rare and under Franconian influence) *hiēld*, OHG *hialt*. (3) With intrusive *eu*-vocalism, OE *hēold* (if so taken).

3b(α). Type **fanhan* > **fāhan*. Perf. Gmc. **fefanh* > **fefāh* > Goth. *faifāh*. Aor. (1) Gmc. **feng* (apparently with analogical operation of Verner's Law) > **fing* > OSw. *fik*, *fæk*, OIc. *fekk*; in WGmc. there appears to be a thorough restoration of *e*-vocalism (on the analogy of type **held*, subclass 3a?), **feng* > OE *feng* (if so taken), OFrs. *feng* (but also *fiŋg*; archaism or late independent change?), OS *feng*, OHG (rare and archaic) *feng*. (2) With intrusive *ē*²-vocalism, OE *fēng* (if so taken), OS (Ms. C of the *Heliand*, with Franconian influence) *fieng*, OHG (normal) *fiang*. (3) With intrusive *eu*-vocalism, late OHG *-keong* (Alemannic), *-giong* (Bavarian and Franconian: citations in Schatz, *Ahd. Gr.* §455, end); possibly also OE (rare and poetic) *gēong*, *giong* (Beo. 925, 2409), although these might be taken as *gēong* with analogous vowel-breaking, and apparently ME *heo[n]gun*, Early South English Legendary (EETS 87), 277, 206.

3b(β). Type **bannan*, **spannan*. Perf., no forms in evidence. Aor. (1) Gmc. **benn* > **binn*; there are no NGmc. forms in evidence; in WGmc. apparently analogous restoration of *e*-vocalism occurred, as in 3b(α), **benn* > OE *bēonn* (if so taken, which involves the assumption of

⁹ Jordan, *Mengl. Gr.* §22.

¹⁰ Jordan, *Mengl. Gr.* §23.

analogous vowel breaking or *u*-umlaut in the pl.). (2) With intrusive ē²-vocalism, OHG *spian*. (3) With intrusive *eu*-vocalism, OE *bēonn* (if so taken). [*spenn*, in the OE Gen. (B) 445 etc., probably implies OS **benz*, under (1) above].

4. Type **arjan*, isolated, and with strong forms only in OHG: its solitary situation, as well as its relation to Lith. *ariù* (ELith. pt. *óriau*) raises the suspicion that it was earlier a verb of class VI, with pt. Gmc. **ōr*, yet the single instance of supposed Upper German *uor* recorded by Kögel in PBB 16. 502 is declared by Schatz, Ahd. Gr. §454, to be wrongly read for another word. Perf., no forms in evidence. Aor. (1) Gmc. **ār*; no forms in evidence. (2) With intrusive ē²-vocalism, OHG (normal) *iar*. (3) With intrusive *eu*-vocalism, OHG (late Alemannic) *eorin*, cited in Schatz, Ahd. Gr. §455, end.

5. Type **lātan*. Perf. Gmc. **lélōt* > Goth. *laīlōt*, and (with different ablaut and vowel breaking in the reduplication) OE (primarily Anglian) *leort*, *reord* etc.: Goth. *saīslēp*, *saīzlēp* instead of the expected **saīslōp* is probably due to contamination with the aor. Gmc. **slēp*. Aor. (1) Gmc. **lēt* > OSw. (rare) *lāt*, *grāt*, *rādh* (otherwise explained by Noreen, Asw. Gr. §544, anm. 2, end). (2) With intrusive ē²-vocalism, OSw. (normal) *lēt*, OIc. *lét*, OE (normal) *lēt*, OS *lēt* (and under Franconian influence *liet*), OHG *liaz*. (3) With intrusive *eu*-vocalism, perhaps OS *griot* (Hel. C. 4072; otherwise explained by Holthausen, As. Elb. §452 anm. 1), as also certain ME forms: *leot* Peterborough Chronicle an. 1127; *leoten* Katherine (EETS 80) (R) 2329; *sleop*, Trevisa's Polychron. 3, 7, 11 (Ms. y).

5b. Type **sāγan* ('verba pura', otherwise in their present vocalism resembling the preceding type). Perf. Gmc. **sezō(-w?)* Goth. *saīzō* (with restored *s*), OIc. *sera*. Aor. (or unreduplicated perf.?) (1) Gmc. **sā-w* (almost certainly akin to the Lat. type *sēvi*, possibly to the Skr. type *vavāu*, cf. Möller, PBB 7. 162, so that the origin of apparent stem-final *-w*, which in OE intrudes into the present and participial stems also, is a problem of IE rather than of Gmc. grammar) possibly (though not probably) > OEfrs. *blē* (abstracted from the crasis *blerem* 'blies er ihm'), OWfrs. *wē*. (2) With intrusive ē²-vocalism, OE (occasional in WS) *sēw* and quite probably the OFrs. forms just mentioned. (3) With intrusive *eu*-vocalism, OE (normal WS) *sēow* (beside which the Northumbrian vocalisms in, e.g., *oncneaw*, *oncnæw*, *oncnewa* perhaps rank as dialectal equivalents, rather than as archaisms under (1) or (2) above). Whether in OS *-seu*, MDt. *sieu*, *crieu*, *wieu* we are to see intrusive ē² or *eu* is uncertain.

6a. Type **blōtan*, **hrōpan*, **hwōpan*. Perf. Gmc. **b(l)eb(l)ōt* etc., Goth. *haihōp* and (with different ablaut) OHG *pleruzzun*. Aor. (1) Gmc. **blæt*, apparently unrepresented. (2) With intrusive \bar{e}^2 -vocalism, OIc. *blét* (regarded by Heusler, Aisl. Elb. §314, as a relatively recent innovation for supposed earlier **bliót*), OS (isolated) *wēpin*, OHG (Otfrid) *riaf*, *wiaf*. (3) With intrusive *eu*-vocalism, OE *blēot*, OS (normal) *weop*, *wiop*, OHG (normal) *riof*.

6b. Type **grōjan*, **lōjan* (related to 6a as is 5b to 5a). Perf. Gmc. **g(r)e(g)rō(-w?)*, **lēlō(-w?)* Goth. *lailōun*, OIc. *grera*. Aor. (or unredupl. Perf.: adequately represented only in OE) (1) Gmc. **græ-w* (probably with suffixal *-w* as in subclass 5b, and here also subsequently intruding into the other stems: yet *rēon*, Beo. 512, etc., may be an old form with hiatus, rather than the result of contraction from *rēowun*, as held by Sievers, Ags. Gr. §396, anm. 8 end), unrepresented unless in the form just parenthetically cited. (2) With intrusive \bar{e}^2 -vocalism, perhaps in OE *speua* (Lind.), but almost unattested, as against fairly frequent *-ēw* spellings in 5b. (3) With intrusive *eu*-vocalism, OE (normal) *grēow*.

To those who accept unreduplicated forms as the source of the NGmc. and WGmc. preterites here discussed, our cursory survey of the material may perhaps recommend the following inferences:

1. As intrusive \bar{e}^2 occurs in both NGmc. and WGmc., intrusive *eu* only in WGmc., the \bar{e}^2 -intrusion is the older, and probably antedates the final separation of the two dialects. At this remote period \bar{e}^2 had established itself in subclasses 6a and 5a (although here OSw. shows the archaisms *lāt*, *grāt*, *rādh* as survivals from the period before the intrusion), but had not affected subclass 3. At the latest period of substantial NGmc.-WGmc. unity the series of unreduplicated preterites in those subclasses of which we can speak with any certainty would have been: 1, *hē²t*; 2a, *hleup*; 3a, *held*; 3b(α) *fing*; 3b(β) *binn(?)*; 5a, *lē²t*; 6a, *blē²t*, and this series undergoes regular phonetic development without further interruption in OIc. It is obvious that NGmc. is more archaic than WGmc. in its treatment of these preterites.

2. WGmc. before becoming dialectally differentiated witnessed the levelling out of *e* from 3a into both branches of 3b, and the intrusion of *eu* from 2a into 6a (although here OS shows the archaism *wēpin*), thus producing the series 1, *hē²t*; 2a, *hleup*; 3a, *held*; 3b(α) *feng*; 3b(β) *benn*; 5a, *lē²t*; (5b probably *sē²-w*); 6a, *bleut*; 6b, probably *greu-w*, and this series undergoes regular development without further interruption (except for the isolated neologism *griot* in 5a) in OS, clearly the most archaic of WGmc. dialects in its treatment of these preterites.

3. After WGmc. became thoroughly dialectally differentiated, both \bar{e}^2 and *eu* made further gains in peripheral areas; in OHG \bar{e}^2 intruded into all branches of subclass 3, producing the series *hē²ld*, *fē²ng*, *bē²nn* (although with the occasional survival of archaic *feng*, *geng* in 3b(α)); in OE *eu* intruded into subclass 5b (although with the occasional survival of archaic *sēw*, etc.) and possibly also into subclasses 3a and 3b(β), although as we have seen this cannot be proved; that in OE \bar{e}^2 intruded into subclass 3b(α), in other words that there is any historical justification for our conventional orthography *fēng*, cannot be disproved, but seems unlikely.

4. In the latest period of both OE and OHG *eu* began to appear sporadically in subclasses 1, 3b(α) and in EME even in subclass 5a, the latest and most striking examples coming from the West Midlands and the South, because it is in these areas that EME \bar{o} remains longest distinct from \bar{e} , but here as elsewhere the ultimate falling together of Gmc. \bar{e}^2 and *eu* (MHG, MDt. *ie*; MLG, ME \bar{e}) put an end to this interesting process.

ROMANCE ETYMOLOGIES

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Catalan *abaltir* 'to put to sleep' has been derived by Bruch¹ from the assumed *t*-preterit of Gallic **adbalō* 'to perish'; but Meyer-Lübke² regards this etymology as improbable inasmuch as we do not know that Gallic had a *t*-preterit. Spitzer³ has suggested the derivation of *abaltir* from **expavitare* 'to scare', a notion which Meyer-Lübke pronounces phonetically and semantically unacceptable.

I believe the Catalan verb is from the Vulgar Latin type **abballitare*, formed from VL *ballare* 'to dance'. The prefix and suffix hardly require justification. The change of conjugation may be due to the analogy of Catalan *condormir* 'to put to sleep'. The semantic shift postulated is: (1) 'to dance', (2) 'to make to dance', (3) 'to rock', (4) 'to rock to sleep', (5) 'to put to sleep'.

Italian *cansare* 'to set aside', 'to avoid' is properly derived by Diez⁴ from Latin *campasare* 'to sail by'; but this scholar errs, in my opinion, in separating the Italian verb, on semantic grounds, from Spanish *cansar* 'to tire', and deriving the latter word from *quassare* 'to shake'. Körting⁵ derives both the Italian and the Spanish word from *campasare*, suggesting that the original meaning of *cansar* was 'to bend (the limbs)'. The considerations presented below will show that this is essentially correct. Menéndez Pidal (*Cantar de mio Cid* 532) also derives *cansar* from *campasare*, though without discussing the change of meaning. However, Meyer-Lübke⁶, following Diez, declares the notions 'to sail by' and 'to weary' semantically remote, and derives *cansar* from *quassare* without explaining the *n*.

The key to the puzzle is to be found in the Greek lexicon. Latin

¹ Biblioteca dell' Archivum Romanicum, 2nd series, 3.27.

² Rom. et. Wb., 3rd ed., no. 909, s.v. *ballare*.

³ BdAR, 2.2.

⁴ Et. Wb. der rom. Sprachen 362.

⁵ Lat.-rom. Wb., 3rd ed.

⁶ REW, 3rd ed., numbers 1562 and 6939.

campare is scantily attested, in Ennius and Priscian; but its connection with Greek *kámptein*, admitted for example by Walde⁷, appears never to have been questioned. The starting-point for the Latin form is the aorist *kámpsai*. The Greek verb means (1) 'to bend', (2) 'to turn (a horse or chariot) round the turning post', 'to double a headland', and (3) 'to bend or bow one down' (this sense attested in Aeschylus and Thucydides). While the meaning of Italian *cansare* 'to avoid' < *campare* 'to sail by' obviously goes back to the second sense of the Greek word, it seems probable that the Latin etymon also had the third sense, 'to bend or bow one down', from which the meaning of Spanish *cansar* 'to weary' is easily derived. The etymological principle here involved has been set forth in LANGUAGE 5.25-6, where I have pointed out, in a discussion of Spanish *sima* 'abyss' < *sīmus* < Gk. *sīmós*, that meanings unattested in Latin words borrowed from the Greek, but attested in their Greek originals, sometimes best explain the sense-development of their Romance reflexes.

Extremaduran Spanish *destorgar* 'to break oak branches while removing acorns', which is not mentioned by Diez, Körting, or Meyer-Lübke in their dictionaries, may be derived without phonetic difficulty from Vulgar Latin **deextorticare* 'to twist off'. A VL **torticare* 'to twist' (from *torquere*—*tortus*) has already been postulated by Ulrich⁸ to account for French *torcher* 'to wipe'. Meyer-Lübke⁹, to be sure, views **torticare* as an 'unnecessary' formation, explaining the French verb as a secondary derivative, from French *torche* 'rag' < VL *torca*.

Catalan *enconar* 'to taste', 'to give the first milk to a baby', 'to poison', 'to harm', 'to anger'; *enconado* 'accustomed', 'angered'; Spanish *enconar* 'to inflame', 'to anger'; *encono* 'soreness', 'rancor'. This group was connected by Diez¹⁰ with Latin *melancholia*, and the etymology was recorded without dissent by Meyer-Lübke in the second edition of his dictionary; but it is not even mentioned in the third edition, which records only Spitzer's derivation of the words from Latin *inquinare* 'to befoul'. This connection, however, obviously presents great phonetic difficulty.

I derive the group from Vulgar Latin **inconare* 'to test', the formation and assigned meaning of which appear to be indicated by the Romance

⁷ Lat. et. Wb., 2nd ed., s.v. *campus*.

⁸ ZfomPhil. 9.429.

⁹ REW, 3rd ed., s.v. *torques*.

¹⁰ Et. Wb. d. rom. Sprachen 446.

forms, considered in connection with Logudorian *konos* 'temptation to vomit', which Meyer-Lübke¹¹ records as a derivative of Latin *cōnārī*.

Spanish *lasca* 'small, thin piece detach from a stone', Portuguese *lasca* 'small fragment', evidently connected with Spanish *lascar* 'to slacken (a rope)', Portuguese *lascar* 'to shatter', have been derived by Gröber¹² from Gothic **lasca* 'rag'; but this etymology is declared by Meyer-Lübke¹³ to be semantically impossible.

The Spanish and Portuguese verbs are from Vulgar Latin **laxicare* 'to loosen'; and the noun *lasca* is a postverbal which originally meant 'a loosening', 'something loosened', whence 'a fragment'.

VL **laxicare* has already been postulated by Ulrich¹⁴ to account for French *lâcher* 'to loose' and its cognates. Meyer-Lübke's rejection of this etymology in favor of Regula's **lascus* for *laxus*¹⁵ seems wrong.

Spanish *regazar* 'to tuck up', *regazo* 'lap' are associated by Diez¹⁶ with Basque *galzarra* 'bosom'. This etymology, presenting obvious phonetic difficulty, is not mentioned by Körting or Meyer-Lübke, who omit the Spanish words.

I derive the Spanish verb from Vulgar Latin **recaptiare* 'to catch up', 'to tuck up', the formation of which, as well as the assigned meaning, is definitely supported by Rumanian *acăța* 'to seize', 'to begin', 'to hang' (< VL **accaptiare*). The development of VL *c* into *g* after the prefix *re-* has various parallels, on which I refer to Meyer-Lübke, Rom. Gram. 1.357. The noun *regazo* evidently meant originally 'tuck', 'folded part (of the dress)'.

¹¹ REW, 2nd and 3rd editions.

¹² Archiv f. lat. Lex. u. Gram. 3.310.

¹³ REW, 3rd ed.

¹⁴ ZfromPhil. 9.429.

¹⁵ ZfromPhil. 44.651.

¹⁶ Et. Wb. d. rom. Sprachen 482.

CELTIC NOTES

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- [1. Ir. *āsaim* (NIr. *fāsaim*) 'grow' : Goth. *wahsjan*, etc. 2. W *blin* 'tired' < IE **mlēno-* or **mlīno-* from the root **mel-* 'rub, grind'. 3. Ir. *breo* 'flame' : OE *brīwan*, *brīw*, etc. 4. W *brig* 'top, crest' : Grk. *φρίξ*. 5. Ir. *bun*, W *bon* 'bottom' from the root **bhen-* 'strike' in Goth. *banja*, etc. 6. W *clwyf* 'wound, disease' : Skt. *klībā-*. 7. Ir. *crēcht* 'wound' : MLG *schrā*, ON *skrā*, etc. 8. Ir. *fennaim* 'flay' : Skt. *pari-vās-*, etc. 9. Ir. *gāba* 'danger' : Russ. *zabóta*, OE *cēpan*. 10. W *gosod* 'put' derived from the root **st(h)ā-* 'stand'. 11. W *hawdd* 'easy', *gwahodd* 'invite' : Skt. *sādhū-*. 12. W *hogen* 'girl' from the root **seu-q-* 'suck'. 13. Br. *miz* 'expense' from OFr. *mise*. 14. Br. *piz* 'stingy' semantic borrowing from Fr. *chiche*. 15. On Ir. *serrach* 'foal'. 16. W *tor* 'tear' : Lith. *tārpas*, etc. 17. W *truch* 'broken, maimed' : Lith. *trūkti*.]

1. Ir. *ās*, *āsaim*

The derivation of MIr. *ās* 'growth', OIr. *āsaim* 'grow' suggested by Strachan (IF 2.370) from **pāt-to-* (: Goth. *fōdjan* 'nourish, feed', etc.) has been viewed with doubt (cf. Walde-Pokorny, Vgl. Wtb. 2.73). It may be that the Modern Irish form *fāsaim* preserves the etymological initial correctly, and that the older *ās*, *āsaim* are divergent sandhi forms.¹ In this way I might suggest derivation from **wōks-*, from the base **awek-s* in Grk. *ἀ(φ)έξω* 'increase', Skt. *vakṣ-*, Goth. *wahsjan* 'grow' (*ō* grade in Goth. *wōhs*, pret.), etc. (Walde-Pokorny 1.23).

2. W *blin*

W *blin* 'tired, weary; tiresome, wearisome, grievous, troubled, etc.' (cf. Spurrell, Welsh Dict.¹⁰), OBr. *blin* gl. 'te pore', *blinion* (pl.) gl. 'inertes', Gael. *blian* 'lean, insipid' have been largely derived from Prim. Celt. **blīno-s* < IE **g^wlēn-o-s* : Skt. *glānā-* 'wearied, exhausted' ppl. of *glāyati*, *glāti* 'is exhausted, wearied'.² But here 'fatigue' is

¹ Examples of similar loss of initial *f-* are OIr. *errach* 'spring' : Lith. *vasarà* 'summer'; Ir. *espartain* 'vespers, twilight' from Lat. *uespertina* (*hora*). Cf. Pedersen, Vgl. Gramm. 1.82, 192, 214, 435.

² Stokes in Fick, Vgl. wtb. 3⁴.188; Henry, Lex. étym. 37; Pedersen, Vgl. Gramm. 1.108; Macbain, Etym. Dict. 40 but also attempting to connect with Lith. *gležnūs* 'tender, weak', Grk. *βληχρός* 'gentle'. For these cf. Walde-Pokorny, 1.661, 2.290.

probably only secondary from 'fall down, collapse', and these words go with *galati* 'drips', etc.³ However Loth (Voc. vieux-breton 55 f.) has suggested the derivation of the British words as **mlūnos* : Grk. ἀμβλός 'dull', ἀμαλός 'weak, tender', but the etymology of these words is far from certain.⁴ Moreover a Prim. Celt. **mlūno-* would exclude Gael. *blīan* which must certainly belong here. I should suggest rather a Prim. Celt. **mlīno-* from IE **mlēno-* or **mlīno-*, in any case from a base **melēi-* extension of IE **mel-* 'rub, grind', in Lat. *molere*, Ir. *melīm*, etc.; cf. Skt. *mlānā-* 'faded, withered, exhausted, languid' ptc. of *mlāti*, *mlāyati* 'fades, withers, grows weary, etc.' (with IE *ē*), or (with IE *i*) SCr. *mlitav* 'tepid, spiritless', *mlitati* 'become lazy, loiter', and with *n-* formation (but in transferred sense) Russ.-ChSl. *mlinū* 'sort of cake', Russ. *blin* 'pancake', SCr. *mlinac* 'unleavened bread, rolled dough', etc. (cf. Berneker, Etym. Wtb. 2.64-5; Walde-Pokorny, 2.287).

3. Ir. *breo*

Ir. *breo* 'flame, fire, phosphorus' (*breodha* 'fiery, flaming, blazing') is perhaps to be derived from **bhriwo-* (cf. *beo* 'living' < **gʷiwo-s* : Skt. *jīva-*, etc.), probably a *-wo-* formation to the IE base **bh(e)rēi-* as in OE *brīw*, OHG *brīo*, NHG *brei* 'porridge', OE *brīwan* 'coquere' from **bhrīwo-s* (Fick, Vgl. Wtb. 3⁴.280). The sense of the Irish word is found in other derivatives of the same base : ON *brimi* 'fire', Norw. *brīs* 'fire, flame' (cf. Walde-Pokorny 2.158 f.).⁵

4. W *brig*

W *brig* 'top, summit, cerst' may represent an IE **bhrīk-o-* which can be compared with Grk. *φρίξ, -κος* 'bristling (of hair), rippling (of water)', *φρίσσω*, Att. *φρίττω*, perf. *πέφρίκα* 'bristle up, stand on end' from a base **bhrēi-k-* extension of the IE root **bher-* in words for 'point, bristle, etc.', Skt. *bhrstī-*, Lat. *fastigium*, etc. (cf. Boisacq, Dict. étym. 1039; Walde-Pokorny 2.201).

5. Ir. *bun*, W *bon*

The old connection of MIr. *bun* 'root-stock, lower end', NIr. *bun* 'bottom, base, foundation, origin', W. *bon* 'bottom, stem, base, stump,

³ Cf. Walde-Pokorny 1.691; Brugmann, Morphologische Untersuchungen 1.41.

⁴ Cf. Walde-Pokorny 2.285, 292.

⁵ Stokes's attempt (BB 11.160) to connect Ir. *breo* as **bhreso-* with Dan. *brase* 'fry', Sw. *brasa* 'fire, blaze', etc., seems to have won no adherence. For the etymology of the Scandinavian words cf. Falk-Torp, Etym. Wtb. 99 where the semantic source is taken rather as 'crackle, crack'.

etc.' (with the derivatives MIr. *bunad*, NIr. *bunadh* 'origin' = W *bonedd* 'descent, stock', etc.) with Skt. *bhudná-*, Lat. *fundus*, ON *botn*, OE *bodan* 'bottom, ground', etc. has been long since discarded.⁶ The Celtic words are obviously to be derived from an original **b(h)onus* (Pedersen, Vgl. Gramm. 2.96; Fick 2⁴.177), but the etymological connections apparently remain obscure. It seems difficult to me to separate them from the similar W **bon* 'a blow' in *bonclust* 'box on the ear' (*clust* 'ear'). At first glance the semantic connection seems far-fetched, but the notion of 'striking' is not distant from the sense of the Irish word, cf. e.g. the compound MIr. *bun-slat* 'strong switch, or rod' (*slat* 'rod, switch') and the derivative *bunsach* 'toy javelin'. I should suggest that the original sense of Celtic **bonus* is rather 'club (for striking)' then transferred to the 'stock, bole (of a tree)' whence 'lower end, bottom, base' in general. The root is therefore that already suggested for W *bon-clust*, IE **bhen-* 'strike', in Goth. *banja* 'blow, wound', ON, OE *ben* 'wound', etc. (cf. Walde-Pokorny 2.149). Moreover the semantic development is not entirely without parallel: cf. the usual derivation of Fr. *bout* 'end' : It. *botto* 'blow', derived from a Francon. **bōtan* 'pound'.⁷

6. W *clwyf*

W *clwyf* 'wound, disease' goes back apparently to an original **kleib-* or **kleim-*. Considering the former possibility, I should suggest connection with Skt. *klībā-* 'emasculated, impotent; eunuch' from an IE base **qlēib-*, which is probably an extension of the root **qel-*, **qelā-* 'strike' (Grk. *κλάω* 'break', etc.). The IE long diphthong *ēi* is shortened to *ei* and becomes Prim. Celt. *ē* with the normal Welsh development to *wy*, cf. *mwyl* 'more' < **mēis*, *hwyl* 'longer' < **sēis*.⁸ The derivation of Skt. *klībā-* from a base **klā-i-bo-* has already been suggested, cf. Walde-Pokorny 1.440.

7. Ir. *crēcht*, etc.

The etymologies heretofore assigned to OIr. *crēcht*, NIr. *crēacht* 'wound, scar', W *creithen* 'scar' are in no degree convincing. The connection with Skt. *karjati* (Dhatup.) 'pains, torments', ON *hrekja* 'worry, vex, confound', OFris. *hreka* 'tear'⁹ has little to support it on the semantic side as is already noted in Walde-Pokorny 1.484. Moreover

⁶ Cf. Walde-Pokorny 2.190; Pedersen, Vgl. Gramm. 1.361 f., 363 f., etc.

⁷ E.g. Meyer-Lübke, Etym. Wtb. 1228c; Wartburg, Fr. etym. Wtb. 1.459 f.

⁸ Osthoff, Morphologische Untersuchungen 6.263 ff.; Sommer, IF 11.236 f.

⁹ Uhlenbeck, Etym. Wtb. 46; Fick 3⁴.97.

the Irish form *crēcht* (not *crecht*) supposes a Prim. Celt. **krenkto-* (not **krekt-*) according to Pedersen (Vgl. Gramm. 2.661), but the connection suggested there with Lith. *krenkù*, *krèkti* 'coagulate' is hardly justifiable owing to the fact that the *n* is purely a present formation in Lithuanian (cf. Walde-Pokorny, loc. cit.). However the semantic development 'scab (on a wound)' > 'scar' or 'wound' (the British sense 'scar' may be the earlier, cf. OBr. *cre* for *creith* gl. 'cicatricem')¹⁰ suggested by Pedersen is perfectly plausible (cf. NE *scar* < OFr. *escare* 'scab'). Assuming this, a more obvious connection for Celt. **krenkto-* seems to lie in MLG *schrā* (Gmc. **skrēha-*) 'dry, lean, wretched', ON *skrā* (**skrahō-*) 'dry piece of skin' (hence 'scroll, law-book, etc.'), Norw. dial. *skraana* 'shrivel up', etc. (cf. the Gmc. group by Fick 3⁴.472), with nasal (but with IE -g-) OE *scrincan* 'wither, dry up, shrivel' (NE *shrink*), etc., all from guttural extensions of an IE root **(s)qer-* (Walde-Pokorny 2.565).

8. Ir. *fennaim*

Ir. *fennaim*, NIr. *feannaim* 'flay, skin' were derived by Stokes (Fick 2⁴.259) from **wen-wo*, to the root in W *gwanu* 'pierce, stab', Goth. *wunds* 'wounded', etc. (Walde-Pokorny 1.212). But the etymology runs aground in its explanation of *nn* from *nw*, since this gives rather Ir. *nb* (mutated *b*, NIr. *bh*), cf. Ir. *banb*, NIr. *banbh* 'a suckling pig': W *banw* 'young pig', Br. *bano* 'sow with litter'. It seems more probable to me that we may have here an original nasal present to a root **wes-* found in words of similar meaning as Skt. *pari-vāsayati* 'cut off (around), cut out', *ni-vāsita-* 'deprived of life', etc. (cf. Johannson, IF 3.243 f.; Walde-Pokorny 1.308 f. under 4. *wes-* 'stechen' with further possible cognates). An original **wes-n-* would give Ir. **fešn-* > *fenn-* regularly enough, cf. *as-roinneá* subj. 3rd sg. of *ess-ro-sni-* 'escape', etc. (other examples Pedersen, Vgl. Gramm. 1.85, Thurneysen, Hdb. 89).

9. Ir. *gābud*

Ir. *gābud*, and *gāba* 'danger, NIr. *gābhadh*, *gābh*, *gābha* 'want, need, distress, danger, etc.' may be derived from an IE **gāb-* in Russ. *zabóta* 'care', ON *kōpa* 'stare, gape', OE *cēpan* 'observe, keep, meditate', etc. (with the other Gmc. words by Walde-Pokorny 1.530). However the group is lacking in semantic unity.

10. W *gosod*, MW *gossot*

An etymology for W *gosod*, MW *gossot* 'place, put' is wanting so far as I can discover. It seems probable that the word is, in origin, only a substantive (then used as a verbal noun with inflection *gosodaf*, etc.),

¹⁰ Cf. Loth, Voc. vieux-breton 87.

and moreover probably an abstract noun in *-otā*.¹¹ This view of the derivation agrees with the early substantive meaning of *gossot* 'attacking, placing, onset, blow, etc.', also 'law' (cf. Bull. Board of Celtic Stud. 2.12), and now 'statute, ordinance, position, onset, tilt, joust' (cf. Spurrell, Welsh Dict.¹⁰). The first part **gos(s)*¹² is perhaps an (originally) adjective form from IE **upo-st(h)o-s* lit. 'standing upon' (similar in formation to W *rhos* 'heath', Ir. *ross* 'wood, promontory' = Skt. *prastha-* 'plateau' < IE **pro-stho-s* 'standing forth').¹³ The change in gender of the feminine abstract is of course due to its use as a verbal noun, for as such it was masculine in construction (cf. Morris-Jones Welsh Gramm. 395).

11. W *hawdd*, *gwahodd*

The etymology of W *hawdd* 'easy, feasible, prosperous', as **hwawdd* from **swād-* (: Grk. *ῥῆς* 'sweet', etc.) offered by Morris-Jones (Welsh Gramm. 135, 247) has apparently won no adherence. Moreover the change assumed here of Prim. Celt. (= IE) **sw-* > *h-* (instead of *chw-*) before *o* < *ā* seems to lack other support. A possible IE connection for *hawdd* which I believe is free from phonological difficulty is that with Skt. *sādhú-* 'straight, right; prepared, ready; fair, good, etc.', *sādh-* 'reach one's goal, make straight, prepare, etc.', IE **sādh-* (*sā*[i]dh-*, by Walde-Pokorny 2.450 with other possible cognates). The original sense is perhaps better seen in the compounds and derivatives of *hawdd* (but note also the sense 'prosperous'): *hawddamor* 'good luck, welcome', *hawddfyd* 'ease, pleasure, prosperity', *hawddgar* 'lovely', etc. Another derivative of the same root is probably W *gwahodd*, MW *gwahawdd* 'invite, bid' from **upo-sādh-*, cf. Skt. *upasādhayati* 'prepares, subdues'. The semantic change 'prepare' > 'invite' should not provoke skepticism.

12. W *hogen*, *hogyn*

W *hogyn* 'boy, lad' is probably a masculine form analogical to *hogen* 'girl, lass' (South W *hoges*). The latter is to be derived from **sukā*,¹⁴

¹¹ For the comparatively restricted use of this suffix in Welsh, cf. Pedersen, Vgl. Gramm. 2.36 f.

¹² There is indeed a form *gos* given in Owen Pugh's Dictionary with various meanings some of which might fit here, but I find no trace of it elsewhere. It is probably an invention.

¹³ Cf. Walde-Pokorny 2.604 with numerous other examples of IE **st(h)o-* as second member of compounds.

¹⁴ On the sinking of *u* to *o* before *ā*, cf. Pedersen, Vgl. Gramm. 1.382 f. with mention of this example. For the 'singulative' endings *-yn*, *-en* cf. Morris-Jones, Welsh Gramm. 213, 229.

perhaps from the root seen in *sugno* 'suck', MBr. *sunaff*, etc., IE **seu-q-* (Walde-Pokorny 2.469). The derivation may be paralleled by OE *suhterga* (**sug-ter*) 'nephew' as 'suckling' (Hübschmann, Strassburger Festschrift 1901, 69 f., but doubted by Walde-Pokorny loc. cit.), and the corresponding masculine **suko-s* (> W **hwg-*) has probably been lost. However **sukā*, (**suko-s*) might as easily be derived from IE **seu-* 'bear' (Walde-Pokorny 2.469 f.) except for the rarity of this root in Celtic and the apparent absence of guttural extensions in Indo-European.

13. Br. *miz*

I would reject the connection which Henry (Lex. étym. 203 f.) suggests between Br. *miz* 'expenses', and W *mwys* 'hamper, basket' (OW *muis* gl. 'disci'), Corn. *moys* 'table', from Lat. *mensa*. Not only is the semantic connection as 'table expenses' far-fetched, but the derivation wrecks on phonological grounds. We would expect **moez* or **mouez* in Breton (cf. *poez*, *pouez*, W *pwys* 'weight' from Lat. *pensum*). The word is undoubtedly borrowed from OFr. *mise* (*mize*, *misse*) 'action de mettre' also frequently 'dépense' (i.e. the sum of money put out for a purpose), cf. Godefroy s.v.

14. Br. *piz*

Henry (op. cit. 224) would derive Br. *piz* 'stingy, parsimonious', from a Celtic form related to Fr. *petit*. This is of course possible, since the Romance group may be of Celtic origin. However it seems more probable to me that the word is identical with *piz* 'peas' (from Lat. *pisum*), and the sense 'stingy' is merely a semantic borrowing from Fr. *chiche* 'stingy' beside *pois chiche* 'chick pea'.

15. MIr. *serrach*

The etymology of MIr. *serrach* 'foal', NIr. *searrach* 'youngling, foal, colt, a child' is well agreed upon. It is to be connected with MIr. *serr* 'timid, proud', NIr. *searr* 'the timid and flighty young of all things that follow the dam, as a foal, a child at the mother's heels' (Dinneen), also (O'Reilly) as sb. 'fear', from IE **(s)ter-p-* in Lat. *stirps* 'stem, trunk of a tree', *torpeo* 'be stiff, torpid', Lith. *tīrpti* 'stiffen, become numb', etc., beside **ster-d-* in Eng. *start*, *startle*, etc. (Pedersen, Vgl. Gramm. 1.94; Walde-Pokorny 2.631). However the semantic origin of 'colt' is constantly misstated. Pedersen apparently gives too much weight to the presence of another cognate Alb. *shterpë* 'barren, sterile' (of female

animals). Walde-Pokorny rejects rightly the original sense of 'yet barren' or 'growing up', but substitutes the even less likely hypothesis of 'stilt-legged'. One need not go into the IE connections of *serrach* to explain its application. It is clearly a derivative of the adjective *serr* and meant 'timid, flighty' first perhaps applicable to the '(timid) young of any animal' then specialized to 'foal'.¹⁵

16. W *tor*, Br. *torr*

The suggestion by Henry (Lex. étym. 267) that W *tor*, Br. *torr* 'a break' (with verbs *torri*, *terri* 'to break') are abstracted from the borrowed OE ptc. *toren* 'torn' is, it seems to me, little more than a wild guess. There is no reason to believe that the forms are not Celtic. And similarly the derivation by Morris-Jones (Welsh Gramm. 137) from **torq-s-* to a base **tereq*¹⁶ is going out of the way to be complicated. Besides we do not know what happens to *rks* in Celtic.¹⁷ A simpler view is to derive the forms from an original **torp-* to Lith. *tárpas* 'interval, interstice' (i.e. 'a break'), *trapūs* 'brittle, fragile', etc. (IE **ter-p-*, **tre-p-* extension of **ter-* 'rub', Walde-Pokorny 1.732). For the development *rp* > Celt. *rr*, cf. Ir. *serr* 'sickle', W *ser* 'bill, bill-hook' : Grk. *ἀπρη*, ChSl. *srŭpŭ* 'sickle', etc. (cf. Pedersen, Vgl. Gramm. 1.94; Baudiš, Gramm. of Early Welsh 149).

17. W *trwch*

W *trwch*, fem. *troch* 'broken, maimed' and the verbs *trychu* 'cut, hew, pierce', Br. *trouc'ha* 'cut, slice' have been repeatedly compared with Lat. *truncus*. Morris-Jones (Welsh Gramm. 137) goes so far as to derive *trwch* from **trongos* = Lat. *truncus*. But there is no reason to suppose that *nq* > W *ch*.¹⁸ Henry (Lex. étym. 273) while comparing *truncus* suggests a verbal origin Prim. Celt. **trokko* 'je coupe', but gets no further. Stokes (IF 2.172, Fick 2⁴.136) takes Celt. **trokkos* from **trok-nós*, and was followed earlier by Walde (LEW² 795), but with some revision later (Walde-Pokorny 1.758) as an original **tronk-so*.

A much easier derivation is at hand however and one which avoids the

¹⁵ On the meaning of Ir. *serr*, NIr. *searr* and its possible British cognates cf. Loth, Rev. celt. 44.147.

¹⁶ Without identification, but probably meaning **terek-* 'turn', cf. Walde-Pokorny 1.735 f.

¹⁷ Cf. Pedersen, Vgl. Gramm. 1.81 f. The other examples of *rr* < *rks* quoted by Morris-Jones are just as dubious.

¹⁸ Cf. rather *cainc* : Skt. *çāṅkū-*, ChSl. *sqkŭ*, etc. Pedersen, Vgl. Gramm. 1.126.

complication of the nasal and is more satisfactory for the vocalism than these. W *trwch* may be taken as **truk-s-os*, fem. *troch* as **truksā* with the usual development of *ks* > *ch* (Pedersen, Vgl. Gramm. 1.77 f.; Baudiš, Gramm. of Early Welsh 116), and the normal appearance of *u* as *w*, but *o* before *ā* (Pedersen, op. cit. 1.35, 383). With **truk-* can be compared Lith. *trūkstu*, *trūkti* 'rend, break, burst', *trūkis* 'rent, crack', OE *pryccan*, OHG *drucken*, etc. 'press, oppress' from **t(e)reuq-*, extension of **ter-* 'rub' (Walde-Pokorny 1.731).¹⁹

¹⁹ The comparison of *truncus* with Grk. *τρώω* 'rub down, wear out' made by Meillet (Ernout-Meillet, Dict. étym. 1018) would again connect the Latin and the British forms but from an angle much more satisfactory to the latter.

STUDIES IN THE DICTION OF LAYAMON'S BRUT

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PART III

F.

THE VOICE, SPEECH, SHOUTING, SINGING

§21. THE VOICE

STEFNE, STEUENE, etc. OE *stefn*. This is the only word for the voice itself in Layamon, the OE word *reord* sometimes used in this sense not being used in the poem. The word occurs at least fifteen times in the Brut and always, apparently, in reference to the human voice. In OE, while the word usually applies to the human voice, it is used also of the sound of waters:

Hofan heore stefne streamas, drihten,

hofan and hlynsadan hludan reorde

fram wæterstefnum widra manigra. Metr. Ps. 92.4.

In an interesting passage in Ælfric's Grammar (cit. Bosworth-Toller) the distinction is made: *andgytfullic stemn is, ðe mid andgyte biþ geclypod . . . gemenged stemn is, ðe biþ butan andgyte, swylc swa is hryðera gehlow, and horsa hnægung, hunda gebeorc, treowa brastlung et cetera.* Ælf. Gr. (Zupitza) 4.5-16.

The word is further used of the sound of trumpets: *sio byman stefen* Chr. 1062.

In the Brut, *stefne* etc. nearly always refers (1) to the use of the voice in speaking and calling.

The epithets applied are:—(i) *ludere stefne* I.40.7; II.465.8; II.574.7; III.13.17; III.91.2; (ii) (*mid*) *hæhzere stefne* I.330.21; II.75.16; II.452.1; (iii) (*mid*) *quickere stæuene* II.88.22; II.395.23; (iv) (*mid*) *baldere stefne* II.248.6; III.127.15; (v) *mid soðere stefuene* I.153.13, which refers to the utterance of King Leir, who *þas wuord saide: mid soðere stefuene*, seems to show a transference of the epithet from what is said to the voice which utters it.

2) Applied to laughing: *and he lehzen agon: ludere stæfuenen/and þas word seide: Arður þe kene* II.574.4-7.

3) Applied to groaning: *þa þe king him awoc: swiðe he wes idræcched /and granien* (MS -ein) *agon: ludere stefenen* III.13.14-17.

§22. SPEECH

3EDDES (pl.) 'words, utterance, speech'; OE *gid(d)*, *gyd(d)*, *ged(d)*, etc. 'song, poem'. The word in OE poetry seems generally to refer (i) to minstrelsy, song, poetry, but (ii) occasionally has the sense 'speech, discussion'.

(i) 'Song', etc.:

*wlonce wigsmiðas winburgum in
sittap æt symble, soðgied wrecað
wordum wrixlað.* Mind of Men, 14-16.

*þær wæs sang ond sweg.
gomen-wudu greted, gid oft wrecen,
ðonne heal-gamen Hroþgares scop
æfter medu-bence mænan scolde.* Beow. 1063-7.

*þær wæs gidd ond gleo
hwilum hilde-deor hearpan wynne,
gomen-wudu grette, hwilum gyd awræc
soð ond sarlic.* Beow. 2105-9.

(ii) 'Speech', etc.:

gleawe men sceolon gieddum wrixlan. Exeter Gnom.P.4.

The solitary example of the word in the Brut refers to the lamentations of the white-haired woman who had been outraged by the giant:

*þat set bi þan fure : mid reolichen ibere.
& sæt & biheold æuere : ænne burinæsse.
and hire zeddes sæide : zeomere stefne.* III.25.23-26.4.

3EDDIEN 'to speak, to say'; OE *gieddian*, *gyddian*, *geddian*, etc. 'speak, say'. Although the meaning 'sing' is given by Grein for this word in his *sprachschatz*, by the side of 'say, speak', I cannot discover that the former sense is present in any of the passages which he cites from OE poetry. The following passages sufficiently illustrate the use of the word:

*He þæt ful geþeah,
wæl-reow wiga, æt Wealhþeon,*

*ond þa gyddode guþe gefysod;
Beowulf maþelode, bearn Ecþeowes.* Beow. 628-31.

*Waldere maþelode, wiga ellenrof,
hæfde him on handa hildeþrofre,
guðbilla gripe, gyddode wordum.* Wald. B.11-13.

*Ongan ða gyddigan þurh gylp micel
Caldea cyning.* Dan. 599-600.

(A few lines lower follows the King's apostrophe of Babylon.)

Lazamon uses the word in precisely the same way: *þai zedede þe king: mid zemeliche worden / and þus seide þe kinge: sorhful on mode* I.142.18-21; *þa zeddede þe king: Cassibellaune / Welle broðer Nennius,* etc. I.336.12-14; *þa wes þon kinge wa: & þus zeddede þa / Wale wale vnræd: mani cniht þu makest dæd* I.342.5-8; *þa loh Arður: þe aðele* (MS. alðele) *king / and þus zeddiæn agon: mid gomenfulle worden* II.476.4-7. (Then follows Arthur's contemptuous address to Colgrim and Baldulf whom he has just slain.)

LEODEN 'national language'. The OE word is *læden*, *leden*, but a by-form *leoden* is found already in OE, in Leechdoms III.108.25-110.1: *þæt sar greccas nemneþ spasmus ðæt ys on ure leodene hneccan sar.* The *eo* must be due to the influence of OE *leod* 'people, country', *leode* 'race, nation'. This word is very frequent in the Brut, generally in the form *leoden* and has usually the senses 'people, nation, land'. There are also many compounds with the word as a first element. Stratmann-Bradley cites the form *leoden* 'language' as occurring also in A.R. 170.9 (*hire nome seið ase muchel ase ihud on englische leodene*), Rel. Antiq. II.229, and Langland B.II.253; further *ludene*, Langland C.XV.179, where *u* presupposes *eo*. The use of OE *þeod* 'nation, race' is similarly extended from the people themselves to the language which they speak.

Lazamon's use of *leoden* is seen in the following:—

*& hehte hine faren to þon tune : þe Trinouant wes ihaten.
þe wes on vre leoden : Lundene ihaten* I.100.3-6.

þene stude he cleopede Cernele.

cerno cernis : þat is Latin ful iwis.

cerno an Engliſc leoden : ic iseo swa hit is iqueðen.

el is Ebreowisc : þat is godd ful iwis III.190.5-12.

LEOD-QUIDE 'national language'. This compound appears not to be recorded in OE. I have only noted one example of it in the Brut. This

passage is duly referred to by Stratmann-Bradley, and they record no other example in ME: *Kaer Leir hehte þe burh: leof heo wes þan kinge / þa we on ure leod-guide: Leirchestre clepiað* I.123.21-4.

LEOD-RUNEN 'discourse, counsel'. See also RUNE. This compound is not recorded in OE. Stratmann-Bradley notes one example from the Brut, and none other in ME. Laȝamon's passages are:—

*Her beoð to þisse londe icumen : seolcuðe leod-ronen.
& fromwarð þeon londe of Jerusalem : iwurðen heo beoð
in Beðleem I.389.4-7.*

(The word here seems almost to mean 'tidings, information'.)

*þe king sende after witien.
æfter world-wise monne : þa wisdom cuðen.
& bad heom leoten weorpen : & fondien leod-runen.
fondien þa soðe : mid heore size-craften II.225.2-8.*

*ferden to þan kinge : þe hæhste of þissen londe.
& þus him to sæiden : mid sorhfule steuene.
Lust us no lauerd king : of ure leod-runen II.184,18-23.*

MÆINEN 'say, tell'. OE *mænan* 'tell, narrate':—

*Dær wæs Beowulfes
mæro mæned; monig oft gecwæð
þætte suð ne norð
. . . oþer nænig . . . rices wyrðra. Beow. 856-61.*

*Forþon ic mæg singan and secgan
mænan fore mengo in meodu-healle
hu ic me cynegode cystum dohte. Widsiþ 55-6.*

The older text of the Brut has only one example:— *& wel ȝe hit mazen imunen : þæt ic wulle mæinen / betere beoð ure fifti : þænne heore fif hundred* II.259.10-13.

MOTIEN 'speak, converse'. OE *motian* does not occur in poetry, but Bosworth-Toller has several prose references. The shades of meaning are 'to speak, converse (with a person), to address an assembly, to discuss'. In the Brut the senses are (i) 'converse': *& beon we on sele : and motege of sahte* II.213.13-14; (ii) 'talk, say things': *Cniht þu ært muchel sot : þat þu swa motest* I.61.20-1.

MOTING 'conversation; discussion'. OE *motung* occurs in Aldhelm's Gloss to De Laud. Virg. (Napier, OE Gloss. 4522): *colloquio, of motunge*. (Of Argel) *His gode men he hatede : þa uuele he hæhzede / al his motinge : was ful of ȝitsinge* I.279.23-280.1; *þer wes þer motinge : bituxe þan twam*

kinge III.213.15-16. In the following the word means 'a meeting for discussion' etc.: *and hu he sette moting : & hu he sette husting* III.287.2-3.

QUEDEN 'to say, utter'. OE *cweþan* 'to speak, to say'. This word in the Brut seems always to mean 'to say': *þis wes feole siðe iqueðe : ofte iquidded* II.151.45; *summe queðen ælles* (-otherwise) I.38.19; *þas word weoren iqueðene : þeo guides weoren leoue* 1.43.12-13; *hit wes zare iqueðen : . . . þat* etc. I.390.1; *þa wifmen hehze iborene : þa wuneden a þissen londe / hafden iqueðen alle : on heore guides soðe / þat* etc. II.614.7-10.

The OE sense 'to speak', as in: *He þa worde cwæð* Gen. 195; *Cwæð he eft raðe oðre worde / To Sarran sinceþ brytta* Gen. 2726-7; or: . . . *þa cwæð halig god / 'Ne wile Sarran soð gelyfan'* etc. Gen. 2387-8; *Ða cwæð drihlicu mæg / bryd to beorne. 'Forgif me beaga weard'* etc. Gen. 2781-2, and so on, is absent from the Brut.

A-QUEÐEN 'to reply; resound, echo'. See §23.

QUIDE 'what is said; saying, word; something uttered as a prophecy'. OE *cwide* has various shades of meaning, and in prose may have such specialized senses as 'grammatical sentence', also 'will and testament'. The following passages from OE poetry illustrate the chief applications of this word:

(i) 'word' (of God):

mæg simle se godes cwide gumena gehwylcum

.

ðurh mannes muð manfulra heap

sweartne geswencan. Sol. & Sat. 146-9.

(ii) 'decree':

Ða he þa yrmðu eft oncyrde

æt his upstige, þe we ær drugon

& geþingade þeodbuendum

wið fæder swæsne fæhþe mæste

cýning anboren cwide eft onhwearf

saulum to sibbe. Chr. 614-19.

(iii) 'talk, chatter':

. *þonne win hweteð*

beornes breostsefan; breahm stigeð

cirm on corþre, cwide scralletaþ,

missenlice. Mind of Men 18-21.

(iv) 'songs, lays':

. *him (Alfred) wæs lust micel*

þæt he ðiossum leodum leoð spillode

monnum myrigen, mislice cwidas. Introd. to Metra 3-6.

The word is fairly frequent in the Brut, and the sense, though agreeing fundamentally with that in OE, yet shows differences in some contexts.

(i) 'word, saying': *summe queðen ælles* (= otherwise): & þus þa quides eoden / zeue us þe king & al his gold I.38.19-21; (ii) 'speech, address': þa spac Howel þe hende : hah mon of Brutene / and his quides ræhte : bi-uoren raen þan kinge II.634.6-9; (iii) 'uttered words, something said': Bi-þenc þu a þine quides : þe þu sulf quiddest / Wið Claudien minne fader I.419.4-6; (iv) 'statement concerning future events, prophecy':

Ða wifmen hehze iborene : on heore quides soðe.

þa nan lauerd taken nolde : inne þissere leode.

bute he icostned weoren : þrie inne compe II.614.7-16;

Bute while wes an witize : Mærlin ihaten.

he bodede mid worde : his quides weoren soðe.

þat Arður sculde zete : cum (sic) Anglen to fulste III.145.21-146.3;

(v) 'assertion': þenne mihte ich suggen : soðquides mine / þat me hafde godd seolf : godes iunnen II.262.17-20; (vi) 'verbal advice': ne mihte heo finden nænne ræd : þe heom þuhte al swa god / swa heom þuhte þe soðe quides : of þere quene I.420.19-22; (vii) in the following the sense is apparently 'orders, commands': Vortiger wes swiðe strong : þe hæhste mon of Brutlond / nes þer nauer nan swa hæh : þat his quides durste halsien II.129.1-4.

QUIDDIAN 'to say, speak'. OE *cwiddian*, *cweddian* is rare as a simple verb. Bosworth-Toller records it only from Thorpe's Homilies, and Toller, in the Supplement, as occurring in another passage of these, and in Napier's OE Glosses. It is found in 1881 (Aldhelm): *dicunt*, *cwyddiāþ*, *segcāþ*; 1953 (Aldhelm): *quam dicunt*, *þa hi cwyddiāþ*; and in 4188: *ferunt*, *cwyddiāþ*.

On the other hand, the compound *hearmcwiddian*, *-cweðan* is recorded in Grein's Sprachschatz in the Metrical Psalter LXXI.5: *He þa hearm-cweðend hyneð and bygeþ*; and the word is found also in prose. Boethius 45.10 (Sedgfield): *Ongon hine þa hyspan and hearmcwiddian*.

The simple verb is found several times in the Brut: (i) 'tell, inform': *And her we habbeoð an honden : writen þat he sende / þe þe quiddieð : what he nule don* III.3.15-17; (ii) 'speak, utter' (see passage under QUIDE (iii) above which contains this verb); (iii) 'to say, publish' (see the first passage quoted under QUEÐEN, where the sense of *iqueðe* is repeated by *iquidded*).

A-RÆCCHEN 'to interpret, explain'. OE *areccan* is used in the same

way: *þa eode Daniel swefen areccan sinum frean* Dan. 159; *ne gehyrde ic swa deoplice dryhtnes geryne / þurh menniscne muð areccan* Guthl. 1094-5.

Lazamon uses the verb in the sense 'to interpret' (a dream): *ælc bi his witte : wisdom sæiden / þis sweuen aræhten* III.16.16-18.

REORDIEN 'to speak'. OE *reordian*. This is used in OE poetry, (i) of human speech: *beald reordade / eadig on elne, ondcwis ageaf*. Guthl. 998-9; *þa seo fæmne onwrah / ryht geryno and þus reordade*. Chr. 195-6; (ii) of the voice of birds; specifically of the raven: *sceal se wonna hrefn / fus ofer fægum fela reordian*. Beow. 3024-5. The noun *reord* is used both of human speech, and also, less frequently, of the song of birds: *swylc geac monað geomran reorde, / singeð sumeres weard* Seaf. 53-4.

The verb is only listed once by Madden, and this reference from the Brut is the only one given in Stratmann-Bradley for Middle English:

(Arthur) *reousede on heorte : & he reordien gan*.

and þas word sæide : selest alre kinge II.507.19-22.

RUNE 'language; conversation; debate; information; written document; message'. OE *run* has various meanings, corresponding on the whole with those in the Brut. It seems, however, that in OE the word rarely refers unambiguously to uttered speech.

(i) 'mystery':

Gif onlucan wile lifes wealhstod

.
ginfæsten god gastes cægon,

run biþ gerecenod, ræd forð gæð Exod. 523-6.

(The 'mystery' to be interpreted refers apparently to the *ece rædas* which Moses had proclaimed to the Israelites. Cp. Exod. 515-16.)

(ge) *healdað æt heortan halge rune* Jul. 656.

gehyrað higegleawe halige rune

word ond wisdom Elene 333-4.

bæd hine areccan hwæt seo run bude Dan. 542.

(The problem here is the interpretation of a dream.)

(ii) 'secret': *wif sceal . . . rune healdan* Exet.Gnom.P.85-7.

(iii) 'something written, engraved, (runic) character:—

ræd sceal mon secgan, run writan Exet.Gnom.P.139.

To þam ic georne gefrægn gyfum ceapian

burgweardas þæt he him bocstafas

arædde ond arehte, hwæt seo run bude Dan. 739-41.

(The *bocstafas* were the famous writing on the wall. *Run* here seems to mean both the characters themselves, and the mystery they hold.)

Hæfdon hie on rune ond on rimcræfte awriten

. *wera endestæf* Andr. 134-5.

(iv) 'solitary meditation': *swa cwæð snotor on mode, gesæt him sundor æt rune* Wand. 111.

(v) 'deliberation, discussion, debate':

Monig oft gesæt

rice to rune; ræd eahtedon,

hwæt swiðferhðum selest wære

wið færgrym to gefremmanne Beow. 171-4.

eodon þa fram rune, swa him seo rice cwen

bald in burgum beboden hæfde Elene 411-12.

(Elene has just broken up a debate with the Jewish elders, at which she has explained her objects, and has sent them away to consider how she may best be put on the track of the True Cross.)

There are numerous compounds found in OE poetry with *-run* as a second element. These are all, apparently, very rare, if not hapax legomena, and not all of them by any means imply speech or audible cries. The most conclusive perhaps is *wælrune* used of the ominous howling of the wolf: *fyrð-leoð agol / wulf on walde wælrune ne mað* Elene 27-8; *beadu-run* seems to mean 'hostile tirade' in *Unferð maðe-lode onband beadurune* Beow. 499-501.

I have often found it impossible to determine to my own satisfaction the precise meaning of *rune* both in the Brut and in several other ME texts. In some passages the meaning is pretty clear from the context; in others, I, at least, am unable to decide whether 'counsel' expressed in uttered speech is intended, or merely 'cogitation'. The word is sometimes used, as in OE, in proximity with *ræd*—another word of vaguish meaning—but it is not always clear whether *ræd* and *rune* mean approximately the same thing, or whether they are contrasted. The words appear to be more or less synonymous in Orm's *Godess dærne ræd and run* 18719, and the alliteration no doubt favours the association. *Dærne rune* (see also Orm 18786) apparently means 'secret mysteries' here, but similar phrases in the Brut can not be so interpreted. In OE *run healdan* may mean 'keep a secret', 'take counsel', 'hold a debate'; in the Brut it may mean, apparently, also 'to converse'.

In this highly unsatisfactory state of uncertainty, a rough classification of meanings must be attempted, beginning with those passages in which the sense seems the least ambiguous.

(i) 'language': (of Athelstan) & he sette hundred / and þa nomen of þan tunen : on Sexisce runen III.287.7-9. (Cp. *Egle is ern on Englische roun* Robt. Manning, Eng. Chron. II.477.13757.)

(ii) a) 'conversation, quiet discussion, private talk': (See *holde run* in first passage cited below under RUNINGE.)

he nom ænne swein anan : . . .
& heolde rune wið þane swæin II.123.2-5.

þa ilomp hit seoððe : sone þar æfter.
þat þe Scottene king : & þe duk : speken togaðere.
mid heore stil rune : nomen hem to reda.
þat heo wolden etc. I.137.23-138.6.

b) 'whisper': Ofte heo stilledliche spækeð; and spillieð mid runen II.165.21-2.

(iii) 'counsel, open debate, discussion', etc.:
Herof heo heolden muchel run : uppen Uðer Pendragon II.377.4-5.
(*'Herof'* = Uther's alleged flight from the army.)

Cnihtes eoden to ræde : cnihtes eoden to rune.
radden þat heo nolden : þene castel lengere halden II.383.20-3.

& seoððen he heolde runen : mid fele his þeinen II.529.16-17.

Ofte he eoden to ræde : ofte he heolden rune III.4.1-2.

þer heo heom bi-twenen : heolden heore rune.
hu heo mihten taken on : þat þe scucke weor(e) fordon
III.30.20-2.

Marcel far to helle : & tel heom þer spelles.
and wune þer to-ðere : mid Qencelien þin ifere.
and healdeð þer unker (= inker ?) rune : betere inc weore inne
Rome III.55.11-16.

(iv) 'advice':

Lusteð mine cnihtes : lusteð mine leofe men.
Suggeð me to runun : ræd þat eou þunche I.37.14-17.

Assaracus hit redde : mid dizenlice runen.
þat þat Troynisce folc : mid his fulle fultume.
nomen þene cniht Brutus : & makeden hine to duke I.18.17-22.

& zet ich þe suggen wulle : ane sunder rune.

hu þu mihte fon on etc. III.262.23-263.1.

(v) 'information, intelligence'. It is said, II.164.13-14, that Hengest desired *wið þan kinge holden runinge*.

After feasting and rejoicing:

þa queð Hengest to þan kinge : Lauerd hercne tiðende.

& ich þe wulle ræcchen : deorne runen.

zif þu mine lare : wel wult lusten II.164.21-165.2.

The 'private intelligence' which Hengest imparts, is that he has: *ofte ihærd : hohfulle ronenen / imong þine hired-monnen : heo hatieð þe swiðe* II.165.15-18, and *Hengist spæc wið Vortigerne : of rune swiðe derne* II.193.25-194.1.

(vi) 'something written': (a) 'injunction, request'? or, simply 'sentence, text':

Nu biddeð Lazamon : ælcne æðele mon.

for þene almiten godd : þet þeos boc rede.

& leornia þeos runan : þæt he þeos soðfæste word.

segge to sumne I.3.19-4.2.

(Then follows a form of prayer for the souls of his (Lazamon's) father and mother, and for Lazamon's own soul.)

(b) 'a letter, missive':

þan kaisere heo radden : þat he write runen.

and sende his sonde : zeond feole kinelonde III.4.9-12.

(c) specif. 'contents of a letter, document, message':

Dis writ com to Fraunce : to þan freo kinge.

he hit lette raden : leof him weren þa runen I.135.17-20.

(It seems more likely that the second half of the last line means 'the message pleased him' than that 'letters were dear to him'.)

I am inclined to suggest, in view of the elusive senses of *rune* in the Brut, that this word was sometimes used without any very precise meaning, partly as an old word of somewhat vague, picturesque poetical associations, partly also because it formed an alliterating combination with *ræd* and *ræden*.

RUNEN 'to talk in a low tone, whisper; to discuss'. OE *runian* 'to whisper, to murmur'; the word glosses *musitantes*, Napier Gl. 5.30, 7.193, and 8.151; in Ælfric's Grammar, *susurro*. In ME the word is used in the general sense of 'speak' in *his earen to listen, his nose to smellen, his muð to runien* Trin. Homs., OE Homs. 2nd Ser., 107. In Chaucer the word still has the meaning 'whisper': *And every wight that I saugh there / Rouned ech in othres ere* H.F. 2043-4. The Catholicon has to *Rowne susurrare*.

The precise meanings in *Lazamon*, like those of *rune*, are not always easy to determine. The word is sometimes associated with *ræden*, and it appears doubtful whether we have a contrast, or an echo of meaning. I have not found it possible to assign precise meanings. In some passages the sense seems to be rather 'to deliberate, consider', than actually 'to speak'.

(i) ? 'speak, converse': *þer innen heo speken : þer innen heo runden* I.248.7-8. Does *runden* merely echo *speken* here, or is it 'deliberate' in contrast to 'speaking'? Does it imply that they 'talked things over'? Should the following be rather placed under (ii)?:

Ah we wleð ræden : & we wleð runan.

þa weo nimen Wændoleine : Locrine to are quene I.99.2-5.

Cnihtes gunnen runen : cnihtes gunnen ræden II.388.4-5.

ofte he lette runen : ofte he lette ræde III.292.6-7.

(ii) 'to debate, discuss':

heo reddan heo runden : ræize þa beornes II.126.22-3.

(Of the knights at the husting.)

þer men gunnen rune : his red-zeuen wise.

wulc andswere he ziuen wolde : Lucas þan kaisere

II.623.21-624.2.

þe king and alle his cnihtes : wakeden alle nihte.

al niht heo runden : whæt heom weoren to ræde

I.420.15-18.

(iii) 'to tell, advise':

He (i.e. Merlin) *þe wolde runen : (O. has segge) selest ræden.*

hu þu mihtest þis weorc : makien strong & sterk II.188.10-13.

RUNINGE 'whisper, whispered conversation'(?). OE *runung* 'whispering, secret talking'. Not in OE poetry, and only one reference in Bosworth-Toller and one in the Supplement, both to Homilies. Bradley, who gives 'conversation' as the meaning, has only one reference to the word, namely *Lazamon* 14070, which is the passage in II.164 given below. The *Catholicon* has *Rownynge susurrus*.

The word seems only to occur in MS. Caligula of the Brut:

þe swike set adun : also he wolde holden run.

& he bah to þan kinge : also mon dæð of runinge II.116.23-117.3.

(The 'swike' then proceeded to stab the king.)

for he (i.e. Hengest) *wolde wið þan kinge : holden runinge*

II.164.13-14.

(The king rises, greets Hengest, and makes him sit by his side; after some roystering):

þa queð Hengest to þan kinge

ich þe wulle ræcchen : deorne runen II.164.23-4.

I quote the whole passage in order to note that MS. Otho renders *runinge* and *runen* here by *rounig* and *rouninges*.

SA3E, SAWE; SÆ3(E) 'saying, tale, report; speech, conversation'. The forms *sage*, *sawe* are normal developments from OE *sagu* 'saying' etc.; the form *sæze* apparently owes its vowel to the influence of *sæzen* (see next word) related to it in origin, and, in the Brut, hardly distinguishable from it in meaning.

Grein gives only one reference to *sagu* in OE poetry:

*Hwæt ! ic þinra bysna ne mæg
worda ne wisna wuht oncnawan
siðes ne sagona* Gen. 533-5.

(This is part of Adam's reply to the Serpent, who claims to be God's messenger in inviting Adam to taste the forbidden fruit.)

Lazamon uses the word in various senses:

(i) 'saying', almost 'promises' in the context:

Cuð he wes þen cnihten : & heo hine icneowen.

heo wenden ðat his sawen : soðe weren.

Ah alle heo weren lease : for he wes his leodene swike I.32.16-21.

(ii) 'tale, report, account':

Belin ihærde sugge : þurh summe sæz trewe.

of his broðer wifðinge I.189.19-21.

Ful soh (= soþ) seide þe seg : þe þeos saze talde I.342.11-12.

sazen heo him sæiden : of ane mæidenne.

þat wes Briennes suster hende : ueirest wifmonne III.223.13-16.

(iii) 'speech, oration':

Efne þissere sæze : þa þe kaisere seide III.52.23-4.

(iv) 'say, utterance':

þer he sæt an his bedde : heore ærnde heo him cudde.

ælc his saze seide : swa him sel þuhte III.47.6-9.

(v) 'sayings, words, precepts': *þa he iseid hauede : þa sæzen of ure drihten* (refers to St. Augustine) III.189.11-12.

(vi) 'legend, story, saga':

Næs hit isæid næuere : an sæze no on leoðe.

þat mare luue weore ifunden : bi-tweone twai kingen. III.206.3-6.

(This sense of the word may be due to the influence of *sægen*. See next word. The passage, indeed, should perhaps be put under *sægen* below.)

sæ3en 'ancient story, tradition, legend'. OE *sægen* has in prose usually the general sense 'saying', but Bosworth-Toller cites from Bede's Preface the phrase: *eall 3æt he oððe on gewritum, oððe on ealdra manna sægenum ongeat* (See Bede in *Bibl.d.ags. Prosa* 2, 42-3). The sense here is apparently 'tradition', if not actually 'legend'. Again, in lines 8 etc. of the Preface *þa 3ing ðe on Eastenglum gewordene wæron, sume we of ealdra manna gewritum oððe sægene metton, sume we mid Isses gesægene þæs arwurðan abbudes geleornodon*. It is possibly, however, open to question whether *sægene* in these passages means merely 'oral statements' of what the witnesses really knew from their own experience, as contrasted with written documents, or actually tradition handed on to the old men from others still older.

In OE poetry the word occurs in compounds with *fyrn-* and *eald-*, making pretty certain the sense 'ancient story, legend':

þæt is fyrn-sægen
hu he weorna feala wita geðolode,
heardra hilda in þære hæðenan byrig Andr. 1489-91.
Hwilum cynninges þegn
guma gilp-hlæden, gidða gemyndig
se ðe eal fela eald-gesegena
worn gemunde, word oþer fand
soðe gebunden Beow. 867-71.

The only example of the word in the Brut, unless we include that under *sa3e* (vi) above, is: *What iherden* (MS. *Otho Wo ihorde*) *auere suggen: a sæ3en oðer a spelle / þat æuere æni broder : dude þus for oðer* I.2846-9.

sciren 'to make manifest, declare; to say, utter'. OE *sciran* in the same senses:

- (i) 'to make manifest, declare':

hrape seopðan wæs
æfter mund-gripe mece gepinged,
þæt hit sceaden-mæl scyran moste,
cwealm-bealu cyðan Beow. 1937-40. (Echoes *cyðan*.)

- (ii) 'to say, speak':

Ac nu ealdormenn calle ætgædere
sælon on seldum, swyþe spræcon,
and wið me wraðum wordum scirdan Ps.cxviii.23.

(Echoes *spræcon*.)

The word is used in the Brut in both these senses:

- (i) 'to make manifest, divulge' etc.:

*O Aurilie þe king : þu fræinest me a sellic þing.**loke þat þu na mare : swulc þing ne iscire* II.293.20-3.

- (ii) 'to say, utter':

Nes þer nan swa hæh mon : þat durste word sciren II.281.1-2.*we sculleð forð rihtes.**swiðelicche stille : adun of þissen hulle.**na wurðe cniht swa wod : þa he scire æi word* II.348.19-23.

SEGGEN, SUGGEN 'say' etc.- is omitted as it is very common in every stage of English, and offers no special points of interest.

SPEL 'tale, story, legend; speech, conversation; saying, utterance, news'. OE *spel* in poetry means (i) 'tale, story, legend':

*us gewritu secgað**þæt heo (i.e. Lot's wife) on sealtstanes sona wurde**anlicnesse, æfre siððan**se monlica (þæt is mære spel)**stille wunade* Gen. 2565-8.*Secg eft ongan**sið Beowulfes snyttrum styrian**ond on sped wrecan spel gerade**wordum wrizlan* Beow. 871-4.*hwilum syllic spell**rehte æfter rihte rum-heort cyning (Hroþgar)* Beow. 2109-10.

- (ii) 'message':

*Sege þinum leodum miccle lapre spell**þæt her stent unforcuð eorl mid his werode etc.* Mald. 50-1.

(Byrhtnōþ's reply to the Danish envoy.)

The word is of frequent occurrence in the Brut. The meaning is rather more differentiated than in OE.

- (i) 'tale, legend, story':

*Heo funden i þon londe : twenti eotandes stronge.**Heora nomen ne herdi neuer tellen : a leoda (= leoða) ne a spella.**boten þes anes name : þa heore alre lauerd wes.**Geomagog ihaten* I.76.21-77.3.*Seoððen þis worlde wes astald : nes hit neowhær itald.**on songe ne on spelle : ne miðte hit na mon telle.**þat weoren æi wimman : swa wræcchelicche atogene* II.79.19-80.1.

þat men mazen tellen : heore cun to spelle.

& þer to wurchen songes : inne Sæxlond II.398.7-10.

(Referring to King Uther Pendragon.)

(iii) 'account, narrative, statement, speech, story':

Vn-næðe wes þis spel : isæid to þan ende.

þa isezen heo Hængest : halden ouer dune II.263.2-3.

(The *spel* was the speech of Aldolf.)

þa stod him up Penda : biuore Cadwaðlane kinge.

& þus he gon tellen : mid false his spellen. III.268.14-17.

king ich þe wulle tellen : for seolcuðe spellen II.233.14-15.

næs nauere þe mon iboren : inne nare burhze.

þe auere mihte tellen : þurh nane spellen.

of þere muchele særinesse : þa isizen wes to folke. II.98.14-19.

þa þe seruuinge wes idon : þat hit to þe mete com.

þer of ich wulle þe tellen : selcuðe spellen. I.345.22-346.1.

(Tales concerning the splendour of King Cassibelaunus' household and banquet.)

and ofte he him spæc wið : & spellen him talde II.363.21-2.

(iv) 'tidings, news':

Heo seiden him to soðe : sorhfulle spellen.

þat dead wes his broðer Albanac : & hu Humber hine bi-swac

I.92.15-18.

and þas word sæide : Walwain þe sele.

Marcel far to helle : & tel heom þer spellen III.55.9-12.

(A satirical taunt uttered by Walwain to Marcel, whose head he has just struck off.)

(v) 'talk, uttered words': *þer wes moni reolic spel : þer wes gumene izel* II.322.15-16.

SPELLIEN 'to speak; to utter; to converse'. OE *spellian*. The word is infrequent in OE poetry. Grein's *Sprachschatz* contains only two references:

(i) 'to speak, make utterance': *Ða se Wisdom þa ðis lioð asungen hæfde, þa ongon he eft spellian ond cwæp* Metr. Boeth. xiv. 12-13.

(ii) 'to set forth, make known' (by writing):

Ðus Ælfred us ealdspell reahte

cyning Westsexna, cræft meldode,

leoðwyrhta list : him wæs lust micel

ðæt he ðiossum leodum leoð spellode,

monnum myrigen, mislice cwidas.

Introd. to Metr. Boeth. 1-5.

In the Brut the word is also used both transitively and intransitively, the latter use being the more frequent:

I. trans. (i) 'to speak' (a language): *þat folc gan to spelien: Irlondes speche* I.429.14-15; and (Gerin) *smat hine þurh ut mid his spere : and þas word spilede/Rid nu swa Romain : and reos þe to hellen* III.56.2-5.

(ii) 'to say, utter': *þe king Vortigerne : fræinede his cnihtes sone what weoren þat speche : þe þat maide spilede* II.174.19-22.

II. intrans. (i) 'to say, speak' (reporting what has been said):

þa he alles spac : mid þræte he spilede.

to wroper heore hele : habbeð heo such werc idon I.21.19-22.

wið þa nunne he spilede þer : God læuedi sæi me II.232.10-11.

(ii) 'to speak, hold forth':

þis iherde Maglaunus : þat is quen spilede þus. I.141.9-10.

þus speken þeos swiken : and spileden mid worde I.162.17-18.

Ofte heo stilleliche spækeð : & spilieð mid runen.

of twam zunge monnen : þat feor wunieð hennen II.165.21-4.

beornes þer spileden / sæiden þat heo wolden : eft to þissen londe

II.455.10-12.

(iii) 'to assert, say (that)':

and men gunnen spilien : þat wes Mæi at tune II.594.8-9.

(iv) 'to address':

heora lauerd spac : & þus heom wið spelede. I.37.12-13.

& þus spec wið his folke : & luweliche spilede I.337.5-6.

(v) 'to converse' : *heo speken to-somne : & spileden mid sehte* I.364.3-4; *heo speken heom to-somne : & spileden betweenen* III.205.7-8 (see also III.283.3-4 for the same phrase).

SPÆCHE 'language; discourse, conversation'. The OE *spræc* has the same senses. It is so common in the various shades of meaning, both in prose and poetry, that it is superfluous to give illustrative passages. The chief senses in the Brut are:

(i) 'language': *for þus we eou scullen techen : ure Bruttisce speche* III.55.17-18; see also III.68.3-4.

(ii) 'talk, report':

of him wes muchel speche : zeond þas woruld riche.

swa þat al þis mon-cun : þat of him iherden tellen.
seiden þat he wes god I.299.1-5.

þa wes þe muchele speche : zend þat kineriche.
of Judon þere Quene : þa heore sone acualde I.171.15-18.

(iii) 'manner of speaking, address':

He (i.e. Vortigern) *wende into þan munestre : mid mildere speche.*
he sæide þat he wolde : speken wið Costance II.121.24-5.

(iv) 'words, utterance':

þe king Vortigerne : fræinede his cnihtes sone.
What weoren þat speche : þe þat maide spiled II.174.19-22.

(v) 'mode of expression, style, language' (of a written document):

þe king nom þat writ on hond : & he hit wroðliche bi-heold.
seolcuð him þuhte : swulcere speche I.21.15-18.

SPEKEN 'to speak' is omitted because it is so frequent, and offers no points of special interest.

TALE n. 'tale, narrative'. In this sense the word (*talū*) is very rare in OE poetry. Grein gives only one poetical reference:

Me þa treahteras tala witedon
on þam micclan bec Sol. & Sat. 5-6.

The word is fairly frequent in the Brut in the general, sometimes rather vague sense of 'tale, narrative', or with a definite implication of incredibility or falsehood: the story told by King Dinabuz of the dubious birth of Merlin, which the assembled knights listened to is referred to as *uncuðe talen* II.229.7; again, Merlin repudiates the stories of his birth told by Joram or his followers: *heore talen sinde* (MS. *finde*) *lese* II.240.19. On the other hand the word may also apply to a true account or narrative of events: (of the historian's statement) *seoððen hit seið in þere tale : þe king ferde to Cornwale* II.538.17-18; *ne mai hit na mon suggen on his tale : of þan win ond of þan ale* II.604.17-18; (of the reports of Arthur's spies): *þa þe talen weoren alle italde* III.41.21.

'Speech, utterance' (of Walwain's reply to the Romans' threats):

and þas word seide : Walwain þe sele.

.

zif æuer æie is swa kene : of eower moncunne.
þat us after kenne : ic hine wulle aquelle.
he scal beo to-swungen : mid brade mine sweorden.
Efne þan ilke tale : þa clepede þe kaisere.
Haldeð heom haldeð etc. III.52.7-19.

'Report' (of the spies of the Emperor):

þat heo comen sone : to þan kaisere of Rome.
and talden al heore tale III.70.2-4.

TALIEN 'to speak, tell, utter'; also 'to shout'. The OE word *talien* seems never to have the sense 'speak' etc. in any of the passages cited by Bosworth-Toller or Grein. The sense there is 'consider, think'; 'impute' etc. The ME senses seem to point more probably to a new formation from the noun *tale*, than to a development of meaning from the OE verb.

- (i) In the Brut the word has the usual ME sense 'speak' etc, in:

& ich for-beode : heolde mine þeinen.
vppe þere muchele lufe : þe us be-tueizen lið.
þat nan ne beo so wilde : nan swa unwitti.
þat word talie : ne talkie mid speche.

ær hi ihere minne horn : mid græte hine blowen I.34.3-12.

(Brutus is speaking; he is about to lead the Trojans in a surprise attack on the Greeks.)

- (ii) 'to converse': Here the meaning is specifically 'to break silence':

He talden wið Morgan : & is cnihtscipe tælden.
and þus him to seiden etc. I.162.1-3.

- (iii) 'to shout': (this is from the famous description of a fox hunt):

þenne sizēð him to : segges vnder beorzen.
mid hornen mid hunden : mid hazere stefenen.
hunten þar talieð : hundes þer galieð II.451.20-452.3.

The following passage is from MS. Otho; the older text has *dremen*:

into þare borh he sende word : bi one of his cnihtes.
and hehte his folk : stillokere talie I.286.2-5.

TALKIE 'to talk'. This appears to be a ME word (new formation, or borrowing?), and is not found in OE. The phrase *talkie mid speche*, cited above under TALIEN (i), first passage, is perhaps the first appearance of the word in literature.

TELLEN is omitted for the same reasons as have determined the omission of SPEKEN etc.

WORDEDE (pret.) 'spoke, said'. Not in OE. This, the only form of the word in the Brut, is twice recorded in Madden's Glossary; the former one is referred to by Stratmann-Bradley. The passages are:

þe king wordede þus : þa while him a-lomp wurs II.333.8-9.

(This follows a speech.)

In the second passage the word introduces some remarks of King Constantine to Modred:

þe king mid his sweorde : þæt hefd him ofswipte.

And þus þe king wordede : wræð on his þonke.
Lize þer þu laðe mon : leof þu be þam s(c)ucke etc. III.149.4-9.
 Stratmann-Bradley records also one passage from Langland containing the word.

§23. CALLING, SHOUTING

IBEREN 'voice, clamour, cries'. OE *gebæru* is usually taken as neuter plural, from *gebære*, but see Toller's discussion of gender and declension of this word in the Supplement. The more frequent senses of the word in OE are 'habits, behaviour, bearing; gestures', the sense of 'cries, voice' etc. being rather rare. While in the following passage from Phoenix the context is, I think, decisive for this last sense, the old Bosworth-Toller takes the word to mean 'demeanour', and Grein apparently agrees. Toller, however, in his Supplement, includes the Phoenix passage under the meaning 'voice, cry', though with a query. He quotes in support the lines from The Owl and the Nightingale:

þu miht mid þine songe afere
Alle þat ihereþ þine ibere. O. & N. 221-2.

The Phoenix passage runs:

Donne bið swa fæger fugles gebæru,
onbryrðed breostsefa blissum hremig
wrixleð woðcræfte wundorlicor
beorhtan reorde, þonne æfre byre monnes
hyrde under heofonum. Ph.125-9.

Again a few lines lower, evidently referring to *gebæru*:

. Biþ þæs hleoðres sweg
eallum songcræftum swetra and whitigra
and wynsumra wrenca gehwylcum. Ph. 131-3.

In the other poetical passages containing the word, cited by Grein and Bosworth-Toller, the sense appears to be 'bearing, behaviour' etc.

In the Brut the word certainly denotes some kind of cry or shout in the following:

(i) *Ða weoren inne Lundenne : laðliche iberen.*
þer wes wop þer wes rop : & reoðen vnimete II.98.20-99.1.

þer wes wop þer wes rop : & reuliche iberen II.206.17-18.

alle þa burh-men : mid reoulliche iberen.
. heo him sæiden etc. II.337.6-9.

*Da umbe stunde : stefne þer sturedē.
wide me mihte iheren : Brutten iberen* III.124.22-125.2.

*þa iherde he wepen : wunder ane swiðen.
wepen and weinen : and wanliche iberen* III.24.23-25.2.

(ii) In the following the precise meaning of (*sorhfulle*) *iberen* is in some doubt; the meaning is most probably 'sorrowful cries', but might possibly be 'sad, gloomy, demeanour': *Da weoren in Paris : plihtliche spelles ful iwis / sorhfulle iberen* II.566.4-6. (*iberen* here seems to echo *spelles*.) The later text has *sorhfolle speeches*.

CLEOPIEN, CLIPIEN 'to call', in various senses. OE *cleopian*, *clypian* etc. has the same meanings, but these are rather more restricted than in the Brut.

In OE we have (i) 'to shout, call loudly':

(*englas twegen*) . . . *cleopedon of heahþu*
wordum wrætlicum ofer wera mengu
beorhtan recorde Chr. 508.10.

þa stod on stæðe stiðliche clypode
wicinga ar. Mald. 25-26.

Dunnere þa cwæð, daroð acwehte
unorne ceorl ofer eall clypode. Mald. 255-6.

Also figurative: . . . and his blod to me / *cleopað and cigeð*. Gen. 1012-13.

(ii) 'to call upon, invoke' : *to gode clepian* Jul. 271.

(iii) 'to address as' (I have no poetical reference for this): *ge clipiað me lareow* St. Joh. Gosp. xiii. 13.

In the Brut the word has the following shades of meaning:

(i) 'to call out': (*Patric . . . a Scottisc þein*) *þus clupien agon : to þan kinge anan / Heil seo þu Arður* etc. II.430.23-5; *sorhliche heo gunnen clupien : to Arðure þan kinge / and summed þus iseiden* II.495.13-15.

(ii) 'to proclaim, announce' : *Heo* (Brutus and followers) *letten lude clepian : & cuðen 3eond þat ferde / þat Brutus þe sele : to þare sæ wolde* I.75.13-16; *lette lude clepian : 3ond his leod folke* I.87.4-5; cp. also I.253.18-19.

(iii) 'to summon': *cleope þe to ræde : þine eorles riche* II.637.5-6.

(iv) 'to name, give as name to': *men cleopeð heom muglinges* III.186.14; cp. also III.176.2; III.190.5.

(v) 'to address, recognize as': *and wes icleoped king þere : of þan kinelonde* III.160.5-6:

þe king auoten eode : to-geines þan erche-biscope.

wið uten his halle dure : and sæide þu art wilcume.

& leofliche hine bihedde : & lauerd hine cleopede. III.210.2-7.

(vi) 'to nominate, appoint': *he was icleopped legat : of þissen londe he wæs primat* III.192.18-19.

CLEOPING 'call, summons'. OE *cleopung* 'cry, clamour, prayer', cp.: *and manige cleopodan mid micelre stefne. Ða ahsode he hwæt seo cleopung wære* Blick. Homs. 219.10. Only one example occurs in the Brut: *of nauere nane þinge : þat come to his cleopinge* II.3.22-3.

ZEIDEN (Pret. Pl.) 'shouted'. (i) 'Shouted in anger': *þa zeiden lude : alle Rom-leode* III.106.23-4; (ii) 'shouted in derision': *and seoððe zeiden him on : mid zeomerliche stanen* III.185.10-11. (O text has *mid hire foule scornes*).

LUDE 'sound (of a voice), clamour, uproar'. OE *ge-hlyd* 'sound of a voice, a cry; clamour, noise, din; tumult made by people in excited action; noise made by an animal'. Also OE *hlyd* 'rumour, noise made in discussing an event'. The former of these is by far the commoner in OE. The latter is not recorded either by Grein or Bosworth-Toller in verse, and the former only once, and in the sense of 'cry': *gehlyde min to þe becume* Ps.101.1.

In the Brut the word means both 'noise' generally, whether made by human voices, or otherwise, and also, specifically, 'a cry'.

(i) 'noise, sound of speaking or stirring':

Arður forbæd his cnihtes

þat heo liðen stille : swulc heo stelen wolden.

liðen ouer leoden : & luden bilefden.

hornes & bemen : alle weoren bilafde. II.440.7-14.

Also: *and na man bi his liue : lude ne wurchen* II.466.13-14.

(ii) 'cry, shout, clamour, of men': *In þon wode he funde : feier ane hinde / þa hunten wenden æfter : mid muchelen heora lude* I.109.21-4; *þa luden heo iherden : of þan Rom-leoden.* III.76.19-20. (Note that the later text has *cry* for *luden*.)

LUDING 'shouting, clamour'. Not found in OE. *Ða iherde þe king : mucle luding* II.22.1-2; *Ða seten adun alle : þa duzeðe on heore benche / and þa luding alæide* II.623.5-7.

ROP 'lamentation, wailing'. OE *hrop* seems not to have been recorded in poetry, but Bosworth-Toller notes *Ðær biþ a wop and hrop*

from Blickling Homilies 185.7. The word is confined to that part of the Brut contained in Vol. II, and in all the passages it is combined with *wop*: *þer wes wop* : *þer wes rop* II.98.22, or *her wes wop her wes rop* II.567.15-16, being the stereotyped formula. See also II.206.17; II.434.7; II.497.11.

RÆM 'clamour, shouting, uproar'. OE *hream* 'shouting, uproar' etc. in poetry seems always to denote a cry of distress or rage. The word is contrasted with *dream* (q.v. §20 above) 'cry of joy and exultation', in *swa mid dryhten dream, swa mid deoflum hream* Chr. 594. Again, in the passage describing the destruction of Pharaoh's host, the sense is clearly 'cry of dismay and lamentation':

*Wæron beorhhliðu blode bestemed
holm heolfre spaw, hream wæs on yðum
wæter wæpna ful, wælmist astah.* Exod. 48-50.

The word is also used of the shouts of horror and dismay which greeted the murderous attack of Grendel's mother:

*Hream wearð in Heorote; heo under heolfre genam
cupe folme; caru wæs geniwod,
geworden in wicum.* Beow. 1302-4.

Finally may be cited the lines from the Battle of Maldon in which the fight opens amid the confused clamour of the combatants, and the shrieks of the ravens and eagles overhead. *Hream* is here echoed by *cym*:

*. þa wæs feohte neh,
tir æt getohte; wæs seo tid cumen
þæt þær fæge men feallan sceoldon.
Ðær wearð hream ahafen, hremmas wundon,
earn æses georn; wæs on eorþan cym.* Maldon 103-7.

In the Brut, *ræm* is applied to cries of various kinds, inspired by different emotions. The use in (iv) below is rather different from any in OE. The other passages show the word in senses corresponding with those in OE.

(i) 'lamentable cry, shout of fear' etc.:

*Nes næwere na mon iboren : ne of nane londe icoren.
þat hæleð weore swa stærce : ne swa hærð iheorted.
þe iherde þesne weop : & þisne wunderliche ræm.*

*.
þat his heorte neore særi : forþan vnimete sorzhen.* II.75.9-18.

(The lamentable cry was that of the victims of the shipwreck which overtook Adionard and Ursele.)

(ii) 'cry of dismay and anxiety' (at the momentary overthrow of King Arthur in his fight with Frolle):

þa aras þe mon-drem : þat þe uolde dunede azen.

aqueðen þa weolcne : for reme of þan uolke II.583.16-19.

(Note the use of *-drem* as an equivalent of *ræm*. The former always means 'noisy mirth, revelry' in OE when used of sound. Cp. however an identical use with the above of the uncompound word in the Brut, III.220.19-22.)

(iii) 'shout of triumph':

Traher feht wið Octaues : & he hine sone ouercom.

Scottes huuen up muchelne ræm : & Octaues folc nam flem II.46.1-4.

(iv) 'shout of encouragement, rallying cry':

& euere (he) cleopede : kenlich swiðe.

Wendeð azein cnihtes : and werieð eo(u) mid fihtes.

Walwain icneo þene reme : of þan Romanisce men III.54.9-16.

RÆMIEN 'to roar, shout'. The corresponding OE verb *hreman* 'to shout' (WSax. *hrieman*, *hryman*) from *hream* is indistinguishable in its non-WSax. form from *hreman* 'to exult'. The former verb, fairly common in OE prose, is not recorded in poetry by Grein or Bosworth-Toller. B.-T. confuses the two words, an error which is corrected by Toller in the Supplement.

The word only occurs once in the older text of the Brut (of the giant subsequently slain by Arthur and Bedivere): *and seoððen he gon ræmien : & raxlede swiðe / & adun lai bi þan fure* III.32.3-5. (This was after his meal.)

§24. SONG AND MUSIC

GLEO 'song, music'. OE *gleo(w)*, *gliw*, etc. The word in OE has the senses: 'music (of all kinds)', 'singing', and 'joy, rejoicing'. (Cp a similar combination of meaning under **DREM**, §20.) As often happens in such words, it is not always possible, in OE, to be perfectly sure of the sense in which *gleo* is used in a given passage. It would sometimes seem as though we must understand a double sense: 'music and mirth', or something of the kind.

(i) 'music' in general; or 'mirth'?:

Ða wæs gidd and gleo.

hwilum hilde-deor hearpan wynne

gomen-wudu grette, hwilum gyd awræc Beow. 2105-8.

See also passage cited under *LEOÐ* below from Exeter Gnom. D. 170-2.

(ii) (perhaps) 'song':

*Ðyder ealdormen ofstum coman
and gegaderade gleowe sungon
on þæra manna midle geongra* Metr. Ps. 67.24.

(iii) 'mirth, delight':

*ne ænig þara dreama, þe dryhten gescop
gumum to gliwe* Phoen. 138-9.

In the solitary passage in which *gleo* occurs in the Brut, it has the sense of 'music', in general, and is indeed contrasted with *songes*: (Of Blæðgabreat) *gleomen him weoren deore / he cuðen al þeos songes : & þat gleo of ilcche londe* I.298.20-2. It is said just before that no man knew so much of *song*, nor of musical instruments, six of which are mentioned. *ne cuðe na mon swa muchel of song, of harpe and of salterium : of fiðele and of corium.* I.298.16-19.

GLEO-CRÆFTEN 'arts of music'. OE *glig-cræft* is recorded by Bosworth-Toller in Gregory's Dialogues in the sense of 'ars musica', etc. The word occurs once in the Brut in reference to that great musician Blæðgabreat, 'of whom all the people that had heard tell of him': *seiden þat he wes god : of alle gleo-cræften* I.299.5-6. According to the preceding lines this king loved *gleomen*, knew the song and music of every land, and also several instruments. See lines quoted under preceding word.

GLEO-DREM 'sound of mirth'. OE *gleodream*. In Beowulf, after the hero's death, Wiglaf laments the event in moving but lengthy terms, and remarks, among much else:

*nu se here-wisa hleahtor alegde,
gamen and gleo-dream* Beow. 3020-21.

The single passage in the Brut containing the word refers to feasting and merry revelry, though whether the word expresses singing, or music in general, is hard to determine:

(*hit ilomp*) *þat Brutus & his duzeðe.*

makeden halinesse : mid wrscipen hezen.

mid mete & mid drinchen : & mid murie gleo-dreme I.77.16-20.

GLEOMEN 'minstrels, singers'. In the OE period, to judge by the glosses, the *gleo-man* played several parts; he was not merely a singer, but also a musician, actor, and buffoon. The simplest function is expressed in the lines: *Leoð wæs asungen / gleomannes gyd* Beow. 1159-60; (*gerisað*) *gleomen gied* Exeter Gnom.P.167.

In the Brut the word is used both of actual singers and minstrels, and of bards and poets who hand on old stories and legends; further, it seems to be used of musicians in general, irrespective of whether their activities were vocal, or instrumental.

(i) 'singer, minstrel'. In this sense the word is associated with feasting and rejoicing and general happiness: *Birles þer þrunge : gleomen þer sunge / harpen gunnen dremen : duzeðe wes on selen* II.538.11-14; (as an accompaniment to a prosperous voyage) *weder stod on wille. . . . Wunden into widen sæ : þeines wunder bliðe / scipen þer forð þrunge : gleomen þer sunge* III.12.19; 12.23-13.3. The word occurs in this sense in MS. Otho (again in connexion with a feast):—*þer was gleomenne songe* I.218.1. MS. Caligula here has the less interesting *segge songe. Hornes þer blowen : gleomen gunnen gleowen* II.382.18-19.

(ii) 'musicians generally'. I suggest tentatively that this is the sense of the word in the passage cited under GLEO above, since Blæðgabreat is there said to love *gleomen*, and to have known both the songs and the music of all lands. But if *gleo* be held to mean 'minstrelsy', and to be simply an echo or repetition of *songes*, then we shall take *gleomen* to mean 'minstrels'.

(iii) 'traditional poets, bards'. This appears to be the sense of our word in the curious passages cited below under SCOP (ii).

GLEOWIEN, GLEOWEN 'to sing; to make melody'. OE *gleowian*, *gliwian*, seems hardly to be used in poetry. Grein gives only one reference—from Riddle 27, where the word has the sense of 'adorn, make gay' (a goblet). In the Brut the word occurs twice. The first passage is quoted above under *gleomen* (last passage under meaning (i)); the other passage refers to Baldulf, disguised as a jester or minstrel, penetrating into King Arthur's court:

*and nom him ane harpe an hond.
He cuðen harpien wel : an his child-haden.
& mid his harpe he ferde : to þas kinges hirede.
& gon þær to gleowien : & mucche gome to makien.*

II.428.22-429.6.

We are probably justified in interpreting the last line as 'to sing and make melody' or 'music'.

LEOÐ 'lay, song embodying old tradition; song'. OE *leoð* has the same meaning. Both in OE and in the Brut the word seems generally to refer as much to the content of a song, the legend which it preserves, etc., as to a song thought of merely as a vocal performance. It is not

always easy to distinguish the meanings. 'Song' seems to be implied in the following passage where *leob* is contrasted, as something sung, with *ræd* and *rune*:

*ræd sceal mon secgan, rune writan,
leob gesingan* Exeter Gnom.P.140.

Also in:

*Longað þonne þy læs þe him con leoba worn
oþþe mid hondum con hearpan gretan,
hafað him gliwes giefte þe him god sealde* Ibid. 170-2.

Sum leoð gleaw Gifts of Men, 52.

The word is applied to the notes of a horn in: *Horn stundum song / fuslic f[yrð]-leoð* Beow. 1423-4.

In the following passage referring to the episode of Hnæf and Hengest which Hroþgar's bard has just told in song, *leob* denotes the legend itself quite as much as the song in which it is embodied:

*Leoð wæs asungen
gleomannes gyd; gamen eft astah,
beorhtode benc sweg* Beow. 1159-61.

In the following passage the word would appear to have the sense merely of 'verse, poetry, story', and is echoed by *woðcræfte*:

*Ne wene þæs ænig ældacynnes
þæt ic lyge wordum leoð somnige
write woðcræfte* Phoen. 246-8.

In the Brut we find the following meanings:

- (i) 'song' pure and simple (about living persons): *Folc hine gunne hatien / and hoker loðe sungen : bi laðen þan kinge* III.155.18-20;
þer suggen beornes : seolcuðe leoðes.
of Arðure þan kinge : & of his here-þringen.
and sæiden on songe : to þisse worlde longe.
neo(re) neuere mære swulc king : ase Arður þurh alle þing
II.503.15-22.

(ii) 'old story, legend, lay':

Heo funden i þon londe : twenti eotandes stronge.
Heora nomen ne herdi neuer tellen : a leoda ne a spelle I.76.21-4.

Næs hit isæid næuere : an sæze no on leoðe.

þat mare luue weore ifunden : bi-tweone twei kingen III.206.3-6.

(iii) 'omen, prognostication'. Such appears to be the sense in the

following passage. Ascanius has invoked the arts of the magicians to foretell what kind of child will be born to Lavine:

Heo funden on þen crefte : carefule leoðes.

þet þes wimon was mid ane sune : þat wes a selcuð bearn.

þat boa sculde fallen : fader & his moder.

þorh him heo sculden deizen : & þene deað þolien I.12.24-13.7.

scop 'minstrel, singer'. OE scop 'poet, singer'. In OE the word means both 'poet', and an actual 'minstrel' or 'singer'.

(i) The former sense is seen in:

Omerus se gode scop Boeth. (Sedgefield) 141.11.xli.

swa Parminides se scop giddode Boeth. (Sedgefield) 101. 3.xxxv.

Omerus wæs east mid Crecum

on ðæm leodscipe leoða cræftigast,

Firgilies freond & lareow,

þæm mæran sciope magistra betst Boeth. Metr. xxx.1-4.

(ii) 'singer, minstrel':

Scop hwilum sang

hador on Heorote Beow. 496-7.

þær wæs hearpan sweg

swutol sang scopes Beow. 89-90.

þær wæs sang ond sweg samod ætgædere

.

Donne heal-gamen Hroþgares scop

æfter medu-bence mænan scolde Beow. 1063-7.

In Riddle 8, the Nightingale, or whatever bird is intended, is called *eald æfenscop*.

In the Brut the word means unmistakably an actual singer in some passages, while in others the sense may be either 'singer' or 'poet'.

(i) 'singer, minstrel':

þa weoren inne Bruttene : blissien inoze.

her wes fiðelinge and song : her wes harpinge imong.

pipen & bemen : murie þer sungen.

Scopes þer sungen : of Arðure þan kingen.

& of þan muchele wurðscipe : þe he iwunnen hafeden

II.530.12-21.

scipen gunnen liðen : leod-scopes sungen.

flod ferede þa scipen : scopes þer sungen.

II.229.11-12, 17-18.

(ii) 'poet': In the following strange prophecy of Merlin concerning the future offspring of Ygerne and Uther (i.e. Arthur), the sense of *scopes* may be 'poets', or 'poets who should sing their lays', which is suggested by the mention of *gleomen*.

of him scullen gleomen : godliche singen.

of his breosten scullen æten : aðele scopes II.367.13-16.

Again, referring to the many legends about Arthur and the Round Table:

Ne (= nis) al soh (= sob) ne al les : þat leod-scopes singeð

II.542.10-11.

Lastly, the poet returns to Merlin's ancient prophecy, in a fuller statement, after the predictions had been fulfilled;

And swa hit wes iuuren iboded : ær he iboren weoren.

swa him sæide Merlin : þe wileze wes mære.

þat a king sculde cume : of Vðere Pendragune.

þat gleomen sculden wurchen burd : of þas kinges breosten.

and þer to sitten : scopes swiðe fele.

and eten heore wullen II.544.16-545.2.

Which is a way of saying that poets and bards shall draw their inspiration from Arthur's life and exploits.

SINGEN 'to sing, intone; to make poems; to ring, peal'. OE *singan*. Both in OE and in the Brut this word is intransitive and transitive. The OE uses are very various.

(i) 'to make vocal music':—*scop hwilum sang / hador on Heorote* Beow. 496-7.

(ii) 'to rehearse in song':—*Cristes þegnas cweþað ond singað / þæt þu sie hlæfdige halgum meahtum*, etc. Chr. 283-4.

(iii) Used of the sounds made by various birds: *fugelas singað*. Finsb. 6. More specifically (a) 'to sing sweetly': *swa se haswa fugel . . . swinsað ond singeð* Phoen. 121-4.

(b) 'to shriek': (*dyde ic me to gomene*) *mæw singende fore medudrince* Seaf. 22; *salowigpada sang hildeleoð / hyrnednebb* Jud. 211-12.

(iv) Of the wolf: . . . *wulfas sungon / atol æfenleoð* Exod. 164-5.

(v) Of horns and trumpets: *Horn stundum song / fustlic fyrdleoð* Beow. 1423-4.

(vi) Of chain mail: *byrnan sungon / gryreleoða sum* Mald. 284-5;
seo byrne sang / hlude for hergum Elene 109-10.

Lazamon seems not to use *singen* of the cries of birds and animals.
 His uses are:—

(i) 'to make vocal music, utter song': *scopes þer sungen : of Arðure þan kingen* II.530.18-19; *gleomen þer sungen* II.538.12; *heo riden singinge : segges weoren blide* III.72.23-4.

(ii) 'to hymn, recite in song': *godes lof singen* II.285.15.

(iii) 'to chant, intone': *þa þe mæsse wes isungen* II.353.9.

(iv) 'to sound' (of musical instruments): *pipen & bemen : murie þer sungen* II.530.16-17.

(v) 'to say, narrate', in poetry: *Ne (= nis) al soh (= soþ) ne al les : þat leod-scope singeþ / Ah þis is þat soððe : bi Arðure þan kinge* II.542.10-13.

SONG 'song, hymn; incantation'. OE *song*. The word as used in OE is rather more widely applied than in the Brut:

(i) 'a song performed by the human voice':

þær wæs hearpan sweg
swutol sang scopes Beow. 89-90.

Donne wit Scilling sciran reorde
for uncrum sigedryhtne song ahofan,
hlude bi hearpan hleoþor swinsade Widsiþ 103-5.

(ii) the notes of birds:

Donne fugla cynn
on healfe gehwone heapum þringað
. songe lofiað,
mærað modigne meaglum reordum Phoen. 335-8.

urigfeðera earn sang ahof Elene 29.

þer ic ne gehyrde butan hlimman sæ,
iscaldne wæg, hwilum ylfete song Seaf. 18-19.

(iii) the howl of the wolf:

wulf song ahof
holtes gehleoða Elene 112-13.

Song in the Brut is chiefly used of vocal music, and especially of that produced at feasts and on cheerful occasions, often with instrumental accompaniment. The word is not applied to the voice of birds and of

the wolf as in OE poetry. At least once it seems to refer to poetical lays, which may well have been actually sung, and once to magic chants.

(i) 'festal singing':

bemen þer bleowen : blisse wes on folke.

þet were segge songe : þer weore pipen ima(n)gge I.217.23-218.2.

þa weoren inne Bruttene : blissin inoze.

her wes fiðelinge and song : her wes harpinge imong II.530.12-15.

See similar words in II.593.23-594.3.

Songes þer weoren murie : þa ilaste swiðe longe II.609.5-6.

(These songs were possibly the hymns sung in the Church since the context suggests this; but they may have been those sung at the feast referred to a few lines lower—lines 11-16: 'when Mass had been sung they crowded out of the Church, and the King and his people to his mete ferde . . . drem wes on hirede'.)

After a sea-voyage of King Cadwala, during which *leod-scopes sungen* III.229.7-12, the merry-making continues ashore: *At Ridelæt he com alond : þer wes blisse & mucche song* III.229.19-20.

(ii) 'religious hymn':

ær wes Píram preost god : æðelest kingen.

þat he rærde churechen : & þa songes rihten. II.504.21-505.3.

(iii) 'poetry; lays, minstrelsy':

Nu seið mid loft songe : þe wes on leoden preost.

al swa þe boc spekeð : þe he to bisne inom. I.4.9-12.

(Of King Blæðgabreat—see also under GLEO, GLEO-CRÆFTEN, and GLEOMEN (iv)).

ne cuðe na mon swa muchel of song I.298.16;

also: *he cuðen al þeos songes : & þa gleo of ilcche londe* I.298.21-2.

& seoððen he alle iwenden : i to Winchæstren.

þa weoren in þissen londe : blisfulle songes I.407.1-4.

þer suggen beornes : seolcuðe leoðes.

of Arðure þam kinge : & of his here-þringen.

and sæiden on songe :

neo(re) neuere mære swulc king : ase Arður þurh alle þing

II.503.15-22.

þat men mazen tellen : heore cun to spelle.

& þer of wurchen songes : inne Sæxlonde II.393.7-10.

- (iv) 'incantation, magic spell':

þa sende Asscanius

after heom zend þat lond : þe cupen dweomerlakes song.

witen he wolde : þurh wiper-craftes.

wat þing hit were etc. I.12.14-20.

- (v) Used of the blast of trumpets: *blisse wes an hirede / þer wes bemene song I.154.16-17.*

MISCELLANEA

STATISTICAL METHODS AND DYNAMIC PHILOLOGY

The present article is an answer to Martin Joos's review¹ of my book, *The Psycho-Biology of Language*², which I have undertaken to write at Joos's request. Before commencing I should like to point out that Joos's review falls into three general divisions: (1) a disquisition on statistical method and the general question of causality, (2) mathematical calculations and a discussion of my treatment of words, and (3) his own contribution to the theory of the phoneme. The three divisions are not discrete and a reading will, I think, show that Joos's ideas on causal relationship permeate the entire review and constitute the chief props of much of his argument. Hence to these ideas I shall turn first.

Joos in his general disquisition on causality (*passim*) is well within his rights in doubting that any causal relation can ever be perfectly established for the familiar reason that the 'chain of causality' between any two events consists of an infinity of nexus-points all of which cannot be conceivably disclosed to empirical analysis. Thus one has no right to say, strictly speaking, that pulling a trigger *CAUSES* the firing of a shell, because one cannot account for the infinity of moments presumedly involved in the total phenomenon of detonation. But Joos forgets to mention one point in stating his views. That this point may not be overlooked, I am quoting, with his permission, the words of M. H. Stone, Associate Professor of Mathematics at Harvard, who has read both my book and the review and whose experience with the entire problem eminently qualifies him to speak:

While the program of eliminating the concept of causality from our thinking can be opposed on purely philosophical grounds, its sheer magnitude is enough to give us pause. Carried out with the logical ruthlessness proposed by Joos, it would first replace existing scientific theories by catalogues of neutral correlation coefficients; and would then confine scientists in their future research to the random calculation of further coefficients. In brief, Joos's indictment of the general procedure followed by Zipf is in reality an indictment of all current

¹ Martin Joos, *LANG.* 12.196-210 (1936).

² G. K. Zipf, *The Psycho-Biology of Language* (1935).

scientific thought: it lies against the work of a Schrödinger, a Heisenberg, or a Dirac as well as against the work of Zipf.

Nothing is gained by arguing this matter of causation further. If linguistic readers of Joos choose to agree that my book should be summarily condemned because it speaks of causation, consistency will require the deletion of the words *cause* and *because* with all their derivatives from their speech and writings. L. Bloomfield, if he agrees with Joos, will have to add as an explanation to his remark, 'the causes of sound-change are unknown'³ that he is using *causes* in the unenlightened sense of the exact sciences. I personally shall prefer to endure the disapproval of the philosophically profound rather than incur the laughter of the exact scientists on this point which can easily appear meretricious if unnecessarily discussed.

However I do not for a minute imply that, even for the most practical purposes, correlation is the same as causal relation (in the usual sense of the term). Yet in some cases a correlation may lead to the discovery of a causal connection for reasons which should be obvious to any one familiar with the elements of statistics. What I have actually followed in my book is a procedure described in every handbook on statistics and self-explanatory, e.g. '... When we have two or more factors tabulated together ... we may be sometimes led to discover a connection of some kind, possibly causal (sic!), between them, and a search for such a connection, or *correlation* as it is called, represents one very useful purpose to which tabulation may be put.'⁴

And certainly I have not resorted to the 'practice of working out an unambiguous causal explanation from and for each ambivalent correlation' as Joos inaccurately states (209) if one uses even his definition of 'statistical correlation' (198). The nature of a possible causal relation was in each case investigated in sets of data different from those used for establishing the correlation. That the careless might not be confused, the sets of data were presented separately and labelled differently. For example, with the phoneme, the correlation was presented in Part I (Equilibrium or Steady State in a Phonemic System), and the quest for causal relation in Part II (The Dynamics of Change in the Development of a Phonemic System). It may be that my data are not sufficient to establish either the correlations or the nature of the causal relationships,

³ L. Bloomfield, *Language* 385.

⁴ D. C. Jones, *A First Course in Statistics* 18 (London 1927).

but there is at least no confusion between the two terms in my book as there has not been in my mind.⁵

Joos's evident error on the above points has led him (205) to make a serious misrepresentation of my investigation of the possible causal connection in the correlation between word-length and word-frequency. He states (204f.) that I 'decide which is to be the cause of the other . . . with these words and no more' and he excerpts 9 lines from my book which I am alleged to believe is a 'demonstration' in itself 'to prove' the point. Now as a matter of recorded fact his excerpt serves in my book as an introduction to eight pages of discussion and linguistic examples which in turn served as the basis for the 'plausible deduction that, as the relative frequency of a word increases, it tends to diminish in magnitude' (*Psycho-Biology* 38). Since Joos is laboring at this point (204) to cast out my tentative Law of Abbreviation for the convenient purposes he evinces later (209), it is regrettable that he failed to show why my deduction was not plausible, let alone to demonstrate the reverse, i.e. that shortness is the cause of frequency of occurrence. The demonstration of the reverse—'easy to prove' and 'an amusing thing'—he simply leaves to 'any reader who likes to talk about talking' (205), not seeing that he is inviting someone to be philosophically pure and profound at the expense of common-sense and every-day experience with language⁶. To this I can only say: let the person speak who is thus qualified.

Similarly in his mathematical demonstrations (199 f.) Joos has been misled into some really gross misrepresentations which have in turn led to some curious mathematical errors on his part.

The point in question is the exponent of a 'line drawn approximately'

⁵ This same arrangement of the material will also answer the hasty judgment in Joos (204): 'He thoroughly confuses the synchronic and diachronic aspects of language-description . . .' The procedure of viewing the diachronous as a series of synchronous states is one with which few exact scientists would care to quarrel.

⁶ This has nothing to do with secondary sets of corresponding forces which are frequently assumed as present in most if not all behavior (and may easily be assumed here). Similarly (with Joos fn. 12) the factors involved are rarely simple, but presumed very complex. For convenience however one speaks of e.g. *intelligence* or *emotion* without an ever-present qualification to the effect that they are probably very elaborate complexes because this qualification is invariably understood by persons familiar with the phenomena. Joos's mention of 'spurious correlation' (*ibid.*) would hence have been more telling if he had himself demonstrated the presence of the 'third or several other causes' of which the entire correlation might be considered as effects. They may indeed be there but I cannot find them and hope that someone else will.

through a set of points (Psycho-Biology 41f., and plates I-III) which represents the number of words of given frequency together with their frequency of occurrence, a line whose exponent I found by rough measurement to be approximately 2. Now Joos (199) is aware of the approximate nature of the exponent from his excerpt from my book; he concedes the existence of correlation and himself admits that the exponent is 'about 2' as we read (198). He even appraises the discovery (199) as a point 'of . . . great theoretical importance'⁷. Immediately thereafter (201) Joos forgets his page 199 and points to an alleged error which has crept into my work because I 'took 2 for a sort of ideal value for the index and correspondingly took the straightness of the line for granted' (though repeated examinations of my book do not disclose to me just where I did this). The alleged error ('an absurdity of which no statistician would be guilty' according to Joos 201) seems to consist of two parts: (A) my not recognizing that the size of the exponent will depend upon the number of words in the sample analyzed, and (B) that there cannot be a straight line with an exponent less than 1.90, as Joos found from 'a brief excursion into the infinitesimal calculus' (201) that 'Karl Verner could have checked . . . himself' (201).

Now in reply to his (A) I am compelled to point out the curious coincidence that in my book (43-4) I devote what amounts to a full page of text setting forth not only that the size of the exponent will vary with the size of the sample examined, but that a priori it will be larger than 2 for small samples, and smaller than 2 for very large samples. That is, I found as Joos found, with nothing about 2 as 'a sort of ideal value'. However, had Joos carefully considered my words at this point before writing his 'critique of (my) doctrine, of its substantiation, and of its application' he would have noted that I recommended here further statistical investigations rather than excursions into the infinitesimal calculus. For in reply to (B) above (re 1.90 as a lower limit), the calculus-excursion for which he invited the check of any competent person (201), I submit the report of Professor M. H. Stone, not doubting that Verner could have made the check were he available:

If one postulates the law $nf^a = k$, it is possible to show that, in the statistically significant cases, the exponent a cannot be much *greater* than 2. Dr. Joos argues,

⁷ 'Cosmic import' (Joos 199) seems to be his gratuitous paraphrase of my feelings (as he reconstructs them) at the time of the discovery. Other scholars have been more generous toward me, possibly because they have personally experienced similar occasions of discovery.

I think incorrectly, that it cannot be much *less* than 2. Thus the limitation on the exponent a is precisely the one which has no application to the statistical results offered by Dr. Zipf.—The fault in Dr. Joos's discussion is this: in treating the related law $fr^{1+b} = K$, he arbitrarily assigns to the undetermined constant K a value taken from one particular case considered by Dr. Zipf. If v is the number of different words in a text and l the total number of words, then the equation

$K \sum_{r=1}^{r=v} r^{-(1+b)} = 1$ must hold, as pointed out by Dr. Joos. This relation tells us, how-

ever, that in order to obtain a desired value of b we have only to choose a constant K correctly. There is no warrant *a priori* for giving K the value $1/10$ as Dr. Joos has done.—On the other hand, the method suggested by Dr. Joos can be applied directly to the law $nf^a = k$. If v and l have the same meanings as above and if m is the greatest value of f —that is, the greatest number of times any word appears in the text—we must have

$$k \sum_{f=1}^{f=m} f^{-a} = v, \quad k \sum_{f=1}^{f=m} f^{1-a} = l$$

From these equations, we see that we must have

$$v/l = \sum_{f=1}^{f=m} f^{-a} / \sum_{f=1}^{f=m} f^{1-a}$$

In statistically significant samples, the ratio v/l will be small; but the right hand member of the equation above cannot be small when a is greatly in excess of 2. The equations we have noted do not impose any further essential restriction on the exponent a ; that is, if a is less than or equal to 2, the numbers k and m can be assigned so that the equations are approximately satisfied.

Turning to the rest of Joos's mathematical findings I am happy to learn (199) and stand corrected that for my two plates (III and I) I should have said *exactly* 1.988 and 1.93 respectively instead of approximately 2 (man lache nicht!), though I earnestly suggest that we collect data for another twenty years before definitely 'settling a point of such great theoretical importance' (Joos 199) lest we appear to prefer the easy manipulation of a slide-rule to the more arduous tasks of tabulation.

I agree with Joos (200) that the harmonic series (Psycho-Biology 44 f.) cannot be valid except for a limited vocabulary, approximately 12,000 if Joos will, as another scholar has previously pointed out.⁸ I protest, however, that nowhere in my book have I defined the limits of a vocabulary. I do allude here, however, to page 22 where I set forth

⁸ W. Empson, *The Spectator* 270 (London, Feb. 14, 1936). Empson states 20,000 as the limit.

reasons why a dictionary list of a quarter of a million words cannot be viewed as representative of the size of a living active-passive vocabulary as Joos (200) believes. May I here go on record with the belief that the harmonic series in English, instead of being discredited by dictionary-lists, may shed valuable light on the approximate size of the active-passive vocabulary as I hope to show from research being conducted on the language of children of different ages, and on the language of so-called 'primitive peoples'.⁹

I stand corrected on the measurement of Plate VI which has been corrected in the plates of the book, and I take pleasure in expressing here an acknowledgment of indebtedness to Joos for his correction. Joos is not right in assuming (202) that this correction makes the degree of inflection of Chinese higher than the one given for French. Out of fairness to me I shall assume that Joos's readers in passing judgment will consult my definition of the *degree of inflection* (Psycho-Biology 252-9) on which my statement is made,¹⁰ before adopting his which is partly derived from symbolic logic.

Continuing I turn to Joos (202) where I read, still with amazement, commencing: 'It might and ought to be asked, even though it did not occur to Zipf to ask the question. . . .'. The question is again about the exponential line, here however, about the theoretical implications of its straightness and of its approximation to 2, all in reference to what Joos terms 'natural' language. To this I should like to reply, without prejudicing Joos's 'mathematical reader' that this entire 'question' happens 'to have occurred to Zipf to ask'. In fact it has been minutely discussed (Psycho-Biology 216-24) under the headings of under-articulated, over-articulated, and pathological language, a discussion which is happily leading to research by psychiatrists along the lines there mentioned.

Before turning now to Joos's critique of my treatment of the phoneme I should like to remark that throughout his entire review Joos seems convinced that because I said in my doctoral dissertation in 1929 'with my *a priori* theory in mind'¹¹ I have thereby forever sacrificed the right to describe the same or approach another problem from an *a posteriori*

⁹ Joos 199, is correct about the nature of the diagonal line if one takes into consideration the chart on Plate IV.

¹⁰ Correctly stated Joos's analogy (202) should conclude 'certain formative elements are *comparatively rare*', a conclusion which does not warrant his implicit assumption that *-imes* occurs less than 51 times in 400,000 running words of French.

¹¹ G. K. Zipf, *Relative Frequency as a Determinant of Phonetic Change*, Harvard Stud. Class. Phil. 40.1 (1929).

angle. This conviction has quite obviously biased his critique throughout. Thus he says, *a propos* of words (204) '... he starts out by hunting for a causal relation. Of course he finds it and finds it quickly for he has already decided what it ought to be' (and his footnote 11 at this point calls attention to the above phrase in my doctoral dissertation where the question of word-length just happened not to have been discussed). The same spirit pervades his critique of my treatment of the phoneme (Joos fn. 21 and text thereto); I suspect it motivates his otherwise inexplicable statement (209) that in my treatment of the phoneme I have resorted to 'the standard magician's device of putting the egg in the hat before the audience knows that he is going to take anything out of the hat.' In reply to all this I merely mention that scientists in their research alternate between the inductive and deductive approaches to their work. To show that this commonplace procedure is not unknown to statistics I quote the words of an eminent statistician: 'The statistical examination of a body of data ... is logically similar to the general alternation of inductive and deductive methods throughout the sciences. A hypothesis is conceived and defined with all necessary exactitude; its logical consequences are ascertained by deductive argument; these consequences are compared with the available observations; if these are completely in accord with the deductions, the hypothesis is justified at least until fresh and more stringent observations are available'.¹² (Presently we shall find that Joos offers what he clearly considers a more stringent observation on the phoneme). Of course I willingly grant that equilibrating tendencies should have been initially expected in speech-behavior from the whole tendency of findings in biology, psychology, and the social sciences, and I even note with pleasure that the phonologists with their equilibrium and 'therapeutic change' are approaching, as it seems to many, the cardinal points of my doctoral dissertation in 1929; nevertheless there are many steps between the first hunch and the final formulation, as any research student will assure Joos, nor has any law been set down in the progress of science which compels a scholar never to change his mind.

Turning to Joos's critique of my treatment of the phoneme (206 f.) I have already replied to his general complaints in the matter of causation and to his inductive-deductive qualms. On the other hand I must honestly admit at the very outset that some of the theoretical work done to-day on the phoneme is simply beyond my intellectual capacities for comprehension and that hence I must refrain from judgment; thus

¹² R. A. Fisher, *Statistical Methods for Research Workers* 9 (London 1934).

whether the phoneme is not a fiction in the domain of mind which is itself a fiction must be left to others for decision. Furthermore since some problems of the phoneme lie deeply imbedded in the ultimate of epistemology and symbolism I believe that we shall have less to retract in the future if, before undertaking empirical study, we content ourselves with explanations (Joos fn. 20) and working hypotheses instead of first seeking final definitive statements to yield immediately 'a rigid procedure for determining phoneme-membership'¹³ (Joos fn. 22),—that is, if we choose to follow the age-old practice of the natural sciences (cf. text to my fn. 12 supra).

Now Joos's summary condemnation (209) of my treatment of the phoneme is a conclusion (let us label it Z) which is derived from his opinion (208) that my classification is based only on statistical study (let us label this opinion Y) partly because my arguments depend (206) 'on probably unverifiable guesses about articulation',¹⁴ but primarily because (208) Joos himself offers a more stringent observation of the magnitude of complexity of a phoneme (207-8), an observation which we shall label X. Since Z follows from Y, and Y from X, I shall concentrate on X, his own observation, where he comes to exactly opposite conclusions from mine (Psycho-Biology 58 f.).

For Joos, aspirates and voiced stops are LESS COMPLEX than their corresponding non-aspirates and voiceless stops because they demand

¹³ That a 'rigid procedure for determining phoneme-membership' may have its own difficulties I call attention to N. Trubetzkoy, *D'une theorie des oppositions phonologiques*, Jour. de Psych. 33.5-18 (1936), to my mind a masterly treatise on defining the phoneme, where (6) he expresses the difficulty of determining even whether the German affricate, *ts*, is to be viewed as a single phoneme or as a group of phonemes. Is all quantitative research on any aspect of the phoneme to wait until this point is settled?

¹⁴ And not so unverifiable either; cf. C. V. Hudgins and R. H. Stetson, *Voicing of Consonants by Depression of Larynx*, Arch. Neer. de. Phon. Exper. 11.1-28 (1935) in which we find experimental support of Psycho-Biology 67; I am grateful to Dr. Hudgins for pointing this out to me. Similarly all the work in Phonometrie, e.g. E. & K. Zwirner, *Phonometrischer Beitrag zur Frage der NHD Lautmelodie*, Vox, 21.45-70 (Dec. 1935). My procedure, instead of being as described by Joos 208, is far more simple and incidentally thoroughly familiar to scientists: one can measure phonemes conceivably in many ways, including magnitude of complexity and relative frequency. Though relative frequency can be readily established, magnitude of complexity can be determined reasonably surely for only a comparatively few sets of phonemes. By establishing a correlation between relative frequency and magnitude of complexity in cases where both are measurable, we can make inferences about the magnitude of complexity of cases where only the relative frequency is observable.

less 'control' by the speaker. To quote (207 f.) '... in that frame of discourse "complexity" can only mean "difficulty" and ought to be measured by the amount of control which the speaker exercises ... a conclusion which would find general favor among Romance scholars.' He implies that the norm of an aspirated stop is not so precise in its delimitations but is best viewed as a less carefully articulated unaspirated stop. Similarly the voicing of a voiced stop is not a precise matter 'since it does not require cessation of voice after a preceding vowel'¹⁵ (no mention of any other type of sound¹⁶). Joos's proposition seems to be analogous to a comparison between (A) a single musical note, and (B) a single musical note plus, say, a preceding grace-note. According to Joos's ideas of approximation in behavior, it should then presumably be harder to play (A) the single note, because if one does not have 'control' one might accidentally first strike a preceding note and thereby produce (B) which would hence exhibit less 'control' (ergo be less complex, q.e.d.). To this observation upon which depend his Y and Z above, I have no further comment other than the remark that those who choose to follow Joos in his grace-note theory of phonetic complexity will scarcely be content with mine.

In closing with the phonemic part, I am surprised that Joos did not observe that the Spanish statistics were misplaced under the alphabetic transcriptions¹⁷ since he seems (209) to have scrutinized the rest of my source material with the notably single exception of this. His personal remark (209) is hence doubly uncalled for and happens moreover to be inaccurate as to fact.¹⁸

So much then for Joos's 'critique' of my 'doctrine, of its substantiation and of its application' (197) as expressed in my book; also for his 'sepa-

¹⁵ The quotation from Joos has a familiar ring, cf. my *Relative Frequency* 40, or *Psycho-Biology* 106.

¹⁶ Cf. G. Panconcelli-Calzia's fundamental work on the voicing of stops reported in *Vox*, *passim*.

¹⁷ My *Relative Frequency* 51. If Joos's 'good warrant' 209 is correct for Russian, Bulgarian, and Czechish, it will make my statistics on these languages even more marked in the direction I indicate. Bulgarian is alphabetic in my tabulation, Russian though phonetic in my original presentation (*ibid.* 44-5) is nevertheless probably alphabetic (cf. *ibid.* 45 fn.1).

¹⁸ Spanish *b* and *v* are pronounced the same under the same conditions but may not for that reason be interchanged on the basis of an 'orthographic equality' as stated by Joos (209). Cf. T. Navarro, T. & A. M. Espinosa, *A Primer of Spanish Pronunciation*, 36f. (1926): 'The letters *b* and *v* are pronounced alike in Spanish, although orthographically they are not interchangeable. ...' Joos's '*v* = *b*' states that they are interchangeable.

rate appraisals' of 'statistical method in linguistics' and of my 'daring and ingenious explanations' (*ibid.*). His closing remarks (210) about my alleged 'implication, unjust both to statistical method and to linguistic science, which must be explicitly denied' will perhaps sound a little forced to anyone who carefully reads the opening chapter of my book (Joos's excerpt is from a defense of linguistic method which I make against Jespersen, not an attack!)

Similarly a reading of my book may reveal that the difference between linguistics and dynamic philology are something more than the absence and presence of statistical findings. To Joos (203) my 310 pages of data and discussion seem primarily presented 'to begin the use of each new discovery by using it as the only basis of a new science'. A different impression was made upon another reviewer: 'Language is the greatest human invention and the most important social tool. Its description and history have absorbed the attention of a long and large series of gifted scholars. Its dynamics and causation are equally worthy of study. The results which Dr. Zipf has attained by studying the frequencies of occurrence of various features of language should encourage the further use of quantitative methods. Relations, patterns and shifts of meaning offer promising fields.'¹⁹ The difference between linguistics on the one hand and dynamic philology on the other is the difference between (A) the Aristotelian enumeration of characteristics of classification, and (B) the Galilean determination of the conditions which bring forth events.²⁰ Both are worth-while, the Aristotelian always coming chronologically before the other. Indeed the Galilean is often but the 'next logical step' (*Psychol-Biology* 4), yet a step which generally puts the new field nearer to other fields of dynamics which in turn are more sympathetic²¹ with the new aims and methods, possibly because they need not have them explained to them.

Joos in his closing paragraphs speaks, I assume, for historical and descriptive linguistics and I, in this article, have spoken for dynamic philology, a sister-field. The differences are clear-cut; the respective names are adequate to avoid confusion, and customary professional courtesy will doubtless insist that the new term 'dynamic philology'

¹⁹ E. L. Thorndike, *Jour. Ed. Psych.* 27. 391 (1936).

²⁰ For a thorough and careful discussion of the methodological implications of these fundamental differences cf. J. F. Brown, *Psychology and the Social Order* 3-103 (1936).

²¹ E.g. C. L. Stone, *Jour. Abnorm. and Soc. Psych.* 30. 546 (1936): 'In fact, Zipf has demonstrated convincingly that the social psychologist must add one more prerequisite for his work, dynamic philology.'

will remain—as a label. But as to what is to stand behind the label, I can only repeat the words with which I close my book: 'It remains to be seen whether future empirical studies will completely substantiate our findings, and, if so, how far they will limit, modify, extend, or re-interpret what appears already to have been found'.²²

GEORGE KINGSLEY ZIPF

SEMANTIC NOTES TO *ob*, *optimus*, *optimates*

Both *optimus* and *optimates* are referred by Walde¹ and by Ernout and Meillet² to *ops* 'wealth'. To this there are three objections: (1) there is no adjective stem to which *optimus* may be referred nor do superlative endings in Latin attach themselves to nouns as in Greek κῦδος : κῦδιστος; (2) *opulentissimus*, obviously from *ops*, does not tend to approach *optimus* in meaning, nor do synonyms like *ditissimus* and *locupletissimus*; (3) the force of the ending *-ates* is ignored.

To explain the last first, it must have the same meaning as in *Antiates*, *Arpinates*, *nostrates*, and the like, where it regularly denotes place of origin. This requirement is met if *optimus* is observed to contain *ob* in the sense of 'up', being formed like other superlatives from prepositions, such as *extimus*, *intimus*, *ultimus* (*uls* 'beyond') and the like. *Optimus* thus means 'uppermost' and *optimates* 'born in the uppermost class', that is, *summo loco* or *summo genere natus*, which is the usual periphrasis for the singular. A single instance of *infimatis* (nom. sing.) occurs in Plautus,³ from which it may be inferred that *infimus* was the opposite of *optimus*.

Ob has shifted for the most part to secondary meanings but the original force was 'up'. Cato writes *furcas circum offigito* 'set up forked stakes round about';⁴ *oborior* means 'rise up' and *oppleo* 'fill up', the latter affording a basis for perfective meanings to be mentioned later; *obturbo* 'stir up' (water).⁵ With the accusative the natural force would be 'up to': *ob portum obvagulaturo ito* 'he shall go up to the door and raise a cry', that is, to summons the defendant.⁶ This force fades to 'to', in which case *ob* is equal to *ad*: Some poet writes *cuius ob os Graii*

²² Somewhat different from Joos 196: 'the treatment almost uniformly evidences a belief that the author has attained valid formulations.'

¹ Lateinisches etymologisches Wörterbuch²; Heidelberg, Carl Winter, 1910.

² Dictionnaire étymologique de la Langue latine; Paris, Klincksieck, 1932.

³ Stichus 493.

⁴ De Agr. 48.2.

⁵ Pliny, H. N. 8.18.26 §68.

⁶ XII Tables, Festus 233 Müll.

ora obvertebant sua,⁷ where admiration, not opposition, is implied. *Occipio* exhibits the shift from 'take up' to 'begin', while *occupo*, from an aorist stem, from 'take up' to 'seize'. *Offero*, *oggero* and *ostendo* (*obs-*) imply 'holding up' to view.

Obviam ire must first have meant 'go up the road' with the idea of 'meeting' connoted. The idea of 'putting up' barriers, obstacles and so on in the way of others connotes opposition but the physical action involved harks back to the meaning 'up': *occludo*, *offulcio*, *obmolior*, *oppilo*, *obsaepio*, *obsero*, *obstruo*, *obturo*, *obvallo*. Verbs meaning 'cover up', 'wrap up' and the like exhibit a consummative (*déterminée*) force: *occelo*, *occulo*, *obduco*, *obhumo*, *obnubilo*, *obnubo*, *obruo*, *obtego*, *operio*, *obsigno*, *obvelo*, *obvolvo*. Others denote thoroughness, where *ob-* equals *con-*: *occulco*, *conculco* 'trample to pieces', *obtero*, *contero* 'grind up', 'pulverize', *obtundo*, *contundo* 'macerate'.

The extreme limit of the perfective or consummative force is reached when the meaning of the simplex conflicts with the etymon of the prefix, that is, *ob-* is joined to words denoting motion downwards: *opprimo* 'crush utterly', of ships 'to sink'; so *occido*, *occido*, *occumbo*, *occubo*, *oppeto* (*peto* 'fall').

A split semantic development is to be observed in *occasio* as opposed to *occasus*. The former is to be classed with *obvenio* and *obtingo*, in which *ob-* equals *ad-*, the association of ideas being with the drawing of lots and the play of chance in general. The meaning of *occasio* implies that *occidit* was once used in the sense of *accidit*, pointing to a rivalry of *ob* and *ad*. In *occasus* the prefix has consummative force 'submergence', 'disappearance from view'.⁸

Another instance of split development may be observed in *obesus*, which means either 'eaten up', 'emaciated' or 'fed up', 'fattened up'. In both the force is perfective, but in the former instance the subject furnishes the food while in the latter he consumes it.

In a few instances the prefix seems to reinforce the meaning of the simplex, pointing in the direction of the object upon which the quality denoted by the verb is exercised: *obsecundo*, *obsequor*, *obseruo*, *obtempero*, *obaudio* or *oboedio*. These denote an obedient or compliant attitude toward another.

None of the examples so far cited is to be easily explained on the

⁷ Cic. Tus. Dis. 3.18.39.

⁸ My colleague Professor J. D. Robbins of the English department calls my attention to a close parallel in an Anglo-Saxon gloss: *Eclipsis solis*, *ðæt is sunnan ásprungennyse* (uppsprungeness). The word in brackets means *defectio solis*.

hypothesis of the meaning 'against', which the lexicons assume to be primary. Neither is this true of a numerous class denoting natural processes or involuntary actions such as 'dry up', 'begin to feel sleepy': *obardesco*, *obaresco*, *obatesco*, *obbrutesco*, *occalesco*, *obdormisco*, *obdulcesco*, *obduresco*, *oppallesco*, *obrigesco*, *obsolesco*, *obsopesco*, *obsordesco*, *obstupesco*, *obsurdesco*, *obtaedesco*, *obtenebresco*, *obtorpesco*, *obturgesco*. In this class in the tenses of incomplete action the prefix seems to accent the inceptive force, but in the perfect tense the force must be perfective or consummative: *occalui* 'I have become quite hardened'.

The inceptive force is noticeable in words denoting vocal sounds, the idea of upward motion being associated with both beginnings and sounds, as *tollere clamorem*. The notion of 'interruption' or 'opposition' is accessory: *occino*, *occlamito*, *ogganio*, *oblatro*, *obloquor*, *obmurmuro*, *obmussito*, *obsibilo*, *obsono*, *obstrepito*, *obstrepo*, *obvagio*, *obvagulo*.

The meaning 'against', which the lexicons wrongly assume to be primary, occurs rather rarely in purity and chiefly with verbs of adversative notion: *officio*, *obluctor*, *obnitor*, *oppono*, *oppugno*, *obsum*, *obversor*. This force is uppermost in *obsto* and *obsisto*, but may well come from the idea of 'stand up to'. It is not connoted necessarily in *obeo*, *occedo*, *occurro*, *obequito*, *obvenio*, which imply motion along a route toward a person or object. *Obsideo* is to be classed with words denoting the 'setting up' of an obstacle, like *obstruo*, and is more properly used in *obsidere vias* than in *obsidere oppidum*. In this case the actor is himself the obstacle or barrier.

The connotation of 'obliquity' may arise from one or all of three associations: (1) from 'binding up', as in *obligo*, *obstringo*, *obtorqueo*, in which case the bonds run obliquely to the object bound: *obstragulum* 'sandal strap', which traverses the foot; (2) from weaving, where the warp and the woof run at right angles to each other: *obliquus* from **obleikwos* or possibly **obleikowos* (*conspicius*, *perspicuus*),⁹ with which *līcium* 'thread' may be related; (3) from plowing, which was always repeated crosswise to break up the balks left by imperfect plows: *offringo* 'plow crosswise'. In the case of *obligo* and *offringo* the primary force is consummative and obliquity secondary. *Obstipus* is puzzling since the simplex is lacking; it means 'inclined' in any direction, opposed to *rectus*. Since the etymon of *stīp-* seems to be 'stiff' and usage connects *obstipus* with the neck chiefly, it is possible that the *ob-* was at first perfective 'stiffened up'. Then, since a 'stiff neck' is often a 'wry neck', the idea of obliquity was generalized.

⁹ Frederik Muller, *Altitalisches Wörterbuch*, Göttingen, Vandenhoeck & Ruprecht, 1926.

Uses of *ob* with nouns are not to be explained by assuming 'against' to be the etymon. The primary force is seen in *ob portum* 'up to the door' and in *ob os Graii ora obvertebant sua*, quoted above.¹⁰ It requires only a gerundive to introduce the idea of purpose: *ob Graeciam defendendam*,¹¹ where *ob* equals *ad*. Purpose, in turn, is cause, and the word denoting the prospective cause is readily switched to denote the retrospective cause: hence *pecuniam ob absolvendum accipere* 'to accept money to vote for acquittal' (prospective)¹² and *pecuniam ob delicta dare* 'to pay money to cover up his crimes' (retrospective).¹³ Thus *ob* was generalized to denote cause of any kind.

Ob with adjectives is usually puzzling, as in the instance of *obstipus* above. In *vasa obrendaria* 'burial urns' the ascription is doubtless to *obruo*. In *obnoxius*, if this is to be referred to *obnecto*, the ascription is to words of 'binding', though here only in a figurative use. In *obscurus*, if *-scurus* is akin to Skt. *skauti* 'he covers', the ascription will be to words of 'covering', like *obtego*, *obvolvo*. *Obscurus* might have given rise to *obniger* 'blackish'. This is, however, not the only possibility: in *obatesco* 'grow black' the force of the prefix is inceptive, like the ending *-sco*, and this force seems to be carried over to *obatratus*. Thus *obniger* may have been felt to mean 'tending to be black'. There seems to be no closer parallel than this for *oblongus* 'longish', 'rather long'. With these words this semantic development seems to have halted.¹⁴

NORMAN W. DEWITT

FOX *kemiyāwi* 'it rains'¹

On the basis of the Cree words given by Watkins and Lacombe in their dictionaries we may confidently restore [kimiwan] 'it rains' and [kimiwanāpuy] 'rain-water' in Bloomfield's transcription; to understand the variants it is necessary for the non-specialist to know that although Lacombe frequently fails to mark long vowels as such, he rarely marks short vowels as long; Watkins nearly always indicates long vowels

¹⁰ See notes 6 and 7.

¹¹ Ennius, Trag. 362 Vahlen.

¹² Cic. Verr. 2.2. 32 §78.

¹³ Tac. An. 14.14.

¹⁴ *Ob* 'up' is the cognate of Dutch *op*, AS *up*, *uppe*, Gothic *iup* (from IE *eub*, *ūb*) but not the same as OHG *ūf*, NHG *auf*. The best suggestion is that of Franck, *Etymologisch Woordenboek de Nederlandsche Taal*², The Hague, Martinus Nijhoff, 1929, who proposes that both *ub* and *up* existed in IE, the variation being due to some proethnic sandhi. This assumption would account for Latin *operio* from **op-verio*, where **ob-verio* is ruled out by *obvenio*, *obverto*.

¹ Printed by the courtesy of the Smithsonian Institution.

properly (e = *i*); he usually marks short vowels as long before [h] (' in his transcription) plus a consonant; e is regularly employed for [i] before [y] (Bloomfield has spoken of the difficulty in distinguishing vowel-quantities in these positions); otherwise he rather rarely indicates vowels as long which are really short, but not quite the same may be said of Horden; Watkins's [u] is transcribed by Lacombe and Bloomfield as [a]; it is a low short vowel which occasionally is fronted or backed; in my opinion true [a] does not exist in Cree. The actual words given by Watkins are *kimewun*, *kimewunapoo*; by Lacombe *kimiwan*, *kimiwanabuiy*. Lemoine in his Dictionnaire gives Montagnais *tshimun* which I have recorded in the Fort George dialect as [tcimo'n']; these faithfully reflect Cree [kimiwan] in accordance with proved phonetic shifts. Baraga in his dictionary gives Ojibwa (Otchipwe) *gimiwan* and *gimiwandbo*; it may be remarked that although Baraga frequently does not designate long vowels as such, he almost never designates short vowels as long. Lemoine gives Algonkin *kimiwan*; and again though long vowels are often not indicated, and *i* and *i* do not seem to be used with entire consistency, the former indicating a very short [i], still I do not recall a case where *i* is used wrongly for a long vowel. Since in Proto-Algonquian an [i] vowel can not occur after an initial consonant, and since Proto-Algonquian [e] appears as [i] in the languages discussed, in view of Fox [-āpōwi] 'fluid' and the known morphology and phonetic shifts we may unhesitatingly give the Proto-Algonquian archetypes as [*kemiwanwi]² and [*kemiwanāpōwi]. On page 30 of Bloomfield's Menomini Texts we have [kēspin kimē'wah] 'if it is raining', and on page 16 [kimēwanapuh] 'in rain water'. As Bloomfield has shown, there are pretty thoroughgoing rules in Menomini whereby original short vowels are lengthened and original long vowels shortened, and the timbre of vowels may shift rather freely. He has also shown that in Menomini a nasal plus a consonant appears as [hk], [ht], [hp], etc. as the case may warrant; and furthermore [hk], etc. terminally appear as [h] and this only. In accordance with the known knowledge of Algonquian morphology [kimē'wah] stands for an earlier [*kimē'wahk] which in turn presupposes [*kemiwanki] (in Bloomfield's transcription; terminal vowels are regularly lost in polysyllabic words in Menomini). An independent [kimē'wan] ([*kemiwanwi]) is therefore hardly a matter of conjecture. Note that the [n] appears in [kimēwanapuh]. It is Fox [kemiyaŋwi] 'it rains' that needs to be cleared up. The solution I

² Shawnee [kimuanwi], quoted from the MSS. of the late Dr. Gatschet, undoubtedly is phonetically deficient, but can be used to support this.

believe is the following: The living inanimate copula in Fox is [-ā-]. All we need to assume is that [*kemiwanwi] (in Bloomfield's transcription) has been transformed into [*kemiwāwi] analogically; for in the *International Journal of American Linguistics*, vol. IX (in press), when discussing the etymology of Cree [mikiwāhp], Fox [wigiyaḡi] I have shown that in all probability the combination [-iwā-] becomes [-iyā-] in Fox, and so [*kemiwāwi] may plausibly have been transformed into [kemiyaḡi] in accordance with this phonetic shift. A parallel is the following: a long time ago I proved that in Cree the inanimate auxiliary [-at-] has been either entirely or largely superseded by [-an-].

TRUMAN MICHELSON

BOOK REVIEWS

Conférences de l'Institut de Linguistique de l'Université de Paris.
Année 1934. Pp. 52. Paris: Boivin et Cie., n. d.

Like the preceding series (see LANGUAGE 11.161-2), this series consists of three lectures; but a fourth, delivered at the Second International Congress of Phonetics (London, July, 1935) has been added. The first is by A. Meillet (died September 22, 1936) and A. Sauvageot, on *Le Bilinguisme des Hommes Cultivés*, and treats the influence on the mother tongue exerted by a second language in common use for social and intellectual purposes, that is, for communication with persons of other nations. The effects on Estnian and Hungarian caused by the concurrent use of German are used by Sauvageot to illustrate the point.

Le Système Grammatical du Berbère, by André Basset (Algiers), presents an outline of Berber verb formation. Basset limits himself to Berber languages, without going into their relations with other languages, but his treatment suffers from a lack of concreteness; thus he tells us (15) that the grammatical names of the parts of the verb are traditional, and not necessarily to be taken in their usual values. He does not give their real values; and his account leaves little which can be remembered.

Caucasien du Nord et Caucasienn du Sud, by Georges Dumézil, is quite different in this respect; herein the important structural phenomena of the Caucasian languages are discussed, illustrating the conservative character of the dialects on the north of the Caucasus, isolated in their valleys and without much contact with the outside world, and the changes from the original type seen in Georgian, which has come under the influence of IE languages. Georgian, for example, has developed a transitive verb, which is quite lacking in the northern dialects.

The fourth lecture is by J. Vendryes, on *La Phonologie et la Langue Poétique*, treating the differences between the spoken vernacular and the language of poetry. He emphasizes the fact that the peculiarities of poetic usage are themselves subject to quite rigid formulations, applicable to the living vernacular at an earlier date, or developed from

such usages: 'la langue poétique, vivant sur une tradition fort ancienne, retarde fatalement sur la langue parlée, dont elle est sortie.' Numerous examples are given, chiefly from French; and in view of the importance of these matters for the rendition of drama and the reading of verse in general, he says: 'il serait bon d'instituer des cours d'histoire de la langue dans nos écoles de déclamation.' Bravo! But would even such training persuade actors to read Shakespeare as though the lines had a rhythm and a melody?

ROLAND G. KENT

Die Stele von Xanthos. Pp. 152. By Friedrich Wilhelm König. (Klotho, historische Studien zur feudalen und vorfeudalen Welt, Band 1.) Wien: Verlag Gerold und Co., 1936.

The stele of Xanthos gives us far the longest and most important of the Lycian inscriptions; it is published as No. 44 in Kalinka's *Tituli Lyciae* (Wien, 1901), Vol. I of *Tituli Asiae Minoris*, and in Joh. Friedrich's *Kleinasiatische Sprachdenkmäler* 62-9 (Leipzig, 1932). The text falls into three parts: 'Lycian A', the usual Lycian of the sepulchral inscriptions; next, a Greek poem of 12 verses; third, a portion in Lycian of a different character, called 'Lycian B' (or Milyish), apparently an older type of Lycian which bore to Lycian A somewhat the relation of Homeric Greek to the Greek of later times.

König notes that the Lycian B is divided into sections by a special symbol, and takes each section as a stanza of three verses, in a meter which varies from dactylic hexameter to the second line of the elegiac distich, and so arranges his text. The Lycian B of the north side of the stele, lines 32-65 (end of side), makes 42 such verses, and the 70 lines of the west side make 66 more verses, the last few words being outside the poem and forming perhaps a curse upon those who might injure the stele and its inscription (page 105). To this text he adds a few couplets from the better preserved part of the Poem of Antiphellos (TAM I, No. 55).

In this transcription König has changed the customary transcription (Kalinka's) of five symbols: he uses *ü ö ž ĵ °* for Kalinka's *ñ ñ z θ h*. In citing words I shall use König's orthography, but without prejudice (for the moment) as to its validity.

It will be found that *ü* (as König himself states) never occurs intervocalic; it does occur initial before *t*, medial between a consonant and *t* or *n*, and final after *ž* or *p* (the following initial varies and was not a factor). There is a single example, *mireüne* (W 66), where *ü* stands

between a vowel and a consonant: this is important, for a reading *mireñe* would be much more natural, in view of the common graphic doubling of the letters (*passbā* North 56, *pasbā* N 46). In fact the constant association of *ū* with a following *t* or *n* suggests that it represents a dental sound, and some kind of nasal, as represented by *ñ*, seems more appropriate to the situation. König (27) does indeed grant that his *ūt* is graphic for [d], in view of *ūtarijeusehe* (gen.) 'of Darius'. Then why not write *ñt*? Kretschmer, *Einleitung in d. Gesch. d. gr. Spr.* 293-4, showed that the voicing of a stop after a nasal was a widespread change in Asia Minor; the *ū* is only confusing. Further, König regards his *ū* as having three values (30), one of them a vowel; but I find no place where in his metrical scheme he so interprets it. I therefore reject *ū*, and keep *ñ* in these values: *ñt* = [d], *ñn* = [n] perhaps preceded by nasalization of the vowel, *-n* after consonant = [ŋ].

König's *ō* for Kalinka's *ṃ* must be handled similarly; for it is found chiefly before *p* and *m*, much less often before *q k t*, sometimes final after a consonant: it should be transliterated *ṃ*, and sounded as consonant or vowel [m], perhaps sometimes as merely nasalization of the preceding vowel; and if in the middle of a consonant cluster it indicated that the following stop was voiced. I pass over the other three transliterations, except to remark that König's *ž* often fails to fit the environment as well as Kalinka's *z* = [ts]; and that his *°* for *h* rests upon the false assumption (48) that a suffixed *-h* could not be sufficiently audible to serve as a patronymic suffix.

I come now to the metrical measurement of the poem. For convenience of typography I shall use l, s, a to indicate syllables long, short, anceps (at the end of verses); capitals will denote metrically accented syllables. König discusses the determination of syllabic lengths on pages 18-22, and the peculiarities of Lycian metrics on 22-5; his measurement of each line is conveniently placed beside it, leaving no doubt as to his views. Thus we find the word *sebe* appearing as metrically La (N 32), Ls (N 33, 56, 65), lA (N 36), sL (N 39, 50), lL (N 39), lL (N 41, 43), ss (N 46). *Pasbā* is Ll (N 32), La (N 46), *passbā* sA (N 56). *Trōmili* and its derivatives begin with Ls (N 38, West 45, 57, 62), sL (N 52), lL (W 11). *Tōpewēti* is ssLa (N 58) and LssL (W 57). This should be enough to dispose of any claim to the discovery of the metrics of the language; such measurements fit neither a quantitative nor an accentual rhythm. I would pause to remark that König's elegiac lines may in the second half contain spondees, or even be LssLsA; but he admits and discusses these points (18-21).

On the subject matter of the inscription (I do not understand why König fails to present the transcribed text of Lycian A) he is more satisfactory. By a comparison of proper names in the various parts of the document he accumulates a goodly body of evidence to show that Lycian B is a longer version dealing with the subject of the Greek poem which separates it from Lycian A (A covers the south and east sides of the stele, and the first 19 lines of the north side). The part in A deals with military campaigns of 412-398 B.C., but with references to earlier members of the princely house. The Greek and the Lycian poems are in their honor. The identifications are interesting; the most curious is that of *Dde* with Stages mentioned by Xenophon, *Hell.* 1.2.5 (not 1.2.3, as König has it, page 85) and Thucydides 8.16.

It is regrettable that our knowledge of the Lycian vocabulary is so scanty, or rather non-existent, that not even a tentative translation can be presented by König, but only a summary of the contents.

ROLAND G. KENT

Thesaurus Linguae Latinae Epigraphicae; the Olcott Dictionary of the Latin Inscriptions. Volume II, Fascicle 2 (*audio-augur*). Pp. 25-48. By Leslie F. Smith, John H. McLean, Clinton W. Keyes. New York: Columbia University Press, 1935.

On the first fascicle, see *LANGUAGE* 21.72. The present fascicle contains the end of the article on *audio*; other important articles are those on *ave*, *Aventinus*, *Avernus*, *averto*, *Aufanae*, *aufero*, *Aufidena*, *augeo*, *augur*. Under *ave* we find that *ave* was the usual orthography only in Spain, Gaul, and Germany, while *have* was the usual spelling in Rome and the rest of Italy; yet as two of the oldest three datable examples are written *ave*, we may assume that the *h* is a non-original encroachment (cf. also Quint. 1.6.21). Under *aufero* there are citations of *abstulit* (and like forms) in 33 passages, *apstulit* in 15, *abtulit* twice, *astulit* once. The article on *augur* occupies slightly more than the last twelve pages of the fascicle, and even at that the end is not reached; a true dictionary on the theme. These items illustrate the wealth of material in this invaluable work.

ROLAND G. KENT

NOTES AND PERSONALIA

CHARLES KNAPP, Professor of Greek and Latin in Columbia University, and a Foundation Member of the LINGUISTIC SOCIETY OF AMERICA, died at his home in New York City, on September 17, 1936, in his sixty-ninth year.

He was born in New York City, on June 22, 1868, and was educated in the schools of that city and at Columbia University, from which he received the degree of A.B. in 1887, A.M. in 1888, Ph.D. in 1890, and Litt.D. in 1929. His entire career was in the service of Columbia University: after three years of graduate work as holder of a Prize Fellowship in Classics, he was Tutorial Fellow in Latin 1890-1, Instructor in Latin and Greek 1891-1902, Adjunct Professor of Classical Philology 1902-6 and Professor of the same 1906-21, Professor of Greek and Latin 1921 to the time of his death, after an illness of one year.

He was a man of wide and thorough scholarship in the classical languages, but he will be remembered largely for his school edition of Vergil's Aeneid and for his editorship of *The Classical Weekly*. From 1907, when the Classical Association of the Atlantic States was founded, he was Secretary-Treasurer of that organization, and Editor and Business Manager of its publication, *The Classical Weekly*, until last May, when increasing ill-health required him to give up these duties. These duties he carried on alone, except that during a few of the earlier years Gonzalez Lodge was Editor-in-chief.

Knapp was a man of absolute honesty, great moral courage, and the highest ideals of scholarship. In his editorship he upheld the standard of the reviews to the extent of incurring enmity in the defense of the reviewer. Where unfavorable criticism was deserved he was too honest in his frankness, to be tactful; yet under the rough exterior which was visible to the many there was a tender and sensitive nature, which appreciated to the full a kind word spoken candidly and without guile. For a further appreciation I refer to the memorial notice by Ernst Riess, in *Classical Weekly* for October 19, 1936, who applies to him the words of Horace, *iustum et tenacem propositi virum*. Never has Horace's phrase found a more fitting exemplar; I know, for I knew Charles Knapp for over thirty years.

ROLAND G. KENT

THREE HONORARY MEMBERS have been lost to the LINGUISTIC SOCIETY through death since the last issue of LANGUAGE went to the printer: Antoine Meillet, of Paris, on September 22; Wilhelm Meyer-Lübke, of Bonn, on October 3; and Hermann Hirt, of Giessen, also early in October. Both personally and scientifically they will be sorely missed.

Dr. Don Cameron Allen has gone to the State College of Washington (Pullman, Wash.), as Assistant Professor of English.

Dr. Edith F. Claffin is Lecturer in Latin at Barnard College, during the second semester of the academic year 1936-37.

Dr. Gertrude H. Dunham is Acting Professor of German at Randolph-Macon Woman's College, during the sabbatical leave of Professor Elsie W. Helmrich.

Dr. George Sherman Lane, Assistant Professor in the Catholic University of America, has accepted an invitation to prepare the section on Indo-European Philology in the American Year Book.

Dr. John Joseph Raymond is conducting courses in the Lithuanian language and literature at Columbia University, in addition to his regular work as Instructor in Greek and Latin at Marianapolis College, Thompson, Conn.

Dr. Allan Lake Rice is now Instructor in German at the University of Pennsylvania.

Dr. Charles F. Voegelin has gone to DePauw University as Assistant Professor of Anthropology.

Dr. George William Small, of the University of Maine, has been promoted from Associate Professor to Professor of English.

THE FOLLOWING NEW MEMBERS for 1936 were received into the LINGUISTIC SOCIETY subsequent to the last published list, and up to December 8, 1936:

Prof. Dr. Renward Brandstetter, Waldstätterhof, Lucerne, Switzerland.

Prof. Dr. W. Doroszewski, Univ. of Wisconsin (Polish).

Dr. Norman E. Eliason, Johns Hopkins University (English).

Prof. S. N. Hagen, Franklin and Marshall College, Lancaster, Pa. (Germanic Philology).

Dr. Hirsch Hootkins, University of Michigan (Romance Languages).
Mr. B. J. Kirchhoff, University of Southern California (German).
Mr. Romeo Proulx, 9 Coombs St., Southbridge, Mass.
Mr. H. A. Rositzke, Harvard University (German).
Mr. Henry Lee Smith Jr., Graduate College, Princeton, N. J.
Miss Lydia E. Wagner, 1111 Packard St., Ann Arbor, Mich. (German).

The following have become members for 1937, up to the same date:

Mr. George C. S. Adams, Graduate Student in French, Univ. of North Carolina, Chapel Hill, N. C.
Prof. Joseph Alexis, 1420 Garfield St., Lincoln, Neb.; Professor of Romance Languages and Chairman of the Dept., University of Nebraska.
Mr. Frederic G. Cassidy, Teaching Fellow in English, University of Michigan, Ann Arbor, Mich.
Prof. Dr. A. Nehring, Schellingstr. 5, Würzburg, Germany.
Prof. C. M. Woodard, French Dept., Roanoke College, Salem, Va.

QUANTITATIVE CLASSIFICATION OF INDO-EUROPEAN LANGUAGES

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1. Method

In 1928 the Polish anthropologist Jan Czekanowski published in the ethnographical quarterly *Lud*¹ a study of the Indo-European languages in which he employed the method of differential diagnosis by quantitative correlation determinations which he had long been using with success in physical anthropology and ethnography. This method, whatever its field, rests upon the recognition of isolable and definable features or traits, which we shall hereafter refer to as elements, whose presence or absence can be determined for a number of populational groups or territorial entities, such as races, tribes, cultures, castes, or, in the present study, languages. The distribution of these is tabulated in terms of plus for presence in a particular group, minus for absence, and the question mark for unknown. Then each group is compared with each of the other groups in terms of the four-cell segregation familiar to statisticians. That is to say, four values are determined: *a* represents the number of elements common to both groups, *b* the number present in the first but absent in the second, *c* the number absent in the first but present in the second, and *d* the number absent in both. In other words, *a* and *d* are agreements, positive and negative respectively; *b* and *c* are disagreements. These four values are then substituted in a suitable formula, and a coefficient of similarity between the two groups results. When the coefficients for each pair of the groups being considered are assembled, we get a classification of the relative degrees of

¹ Jan Czekanowski, *Na Marginesie Recenzji P. K. Moszyńskiego o Książce: Wstęp do Historji Słowian* [Marginal Criticism of P. K. Moszynski's Introduction to the History of the Slavs], *Lud*, Series II, vol. VII (1928). Reprint Lwow, 1928. For an application of the method to ethnography see Stanisław Klimek, *The Structure of California Indian Culture, Culture Element Distributions: I* (University of California Publications in American Archaeology and Ethnology 37. 1-70 [1935]).

similarity between the populational groups or territorial entities which, being objective, has genetic and historical significance. For example, to make this clear in linguistic terms, suppose for the four languages Baltic, Slavic, Indic, and Iranian, we get a high coefficient between Baltic and Slavic, and again a high coefficient between Indic and Iranian, but low coefficients for the four other possible pairs, Baltic-Indic, Baltic-Iranian, Slavic-Indic, and Slavic-Iranian. The coefficients thus make the four languages fall into two classes, Baltic-Slavic, and Indic-Iranian, and it is evident that each class has had a certain history common to its members but not shared by members of the other class.

When all the coefficients for the groups under consideration have been computed, it is usually clarifying to put them into a tabular form in which they are arranged as nearly as possible in the sequence of their values. This arrangement tends to concentrate high values along a diagonal of the table, the lowest tending to fall away from the diagonal into the corners, unless the main relationships are multiple or polygonal instead of linear. For vivid effect the table can then be converted into a graphic diagram in which certain ranges of coefficients are expressed by gradation of symbols. For instance, all values between 1.00 and .90 can be denoted by solid black squares, those between .90 and .80 by mostly black, those between .80 and .70 by half black, and so on. If the symbol values are chosen judiciously, the diagram becomes an exceedingly effective and rapidly grasped representation of the stronger relationships, wherein the salient features of the classification force themselves upon the eye and the mind through the automatic clustering of the symbols.

There are several formulas available for computing coefficients, each possessing particular theoretical or practical advantages; but experience in anthropology and ethnography has shown that ordinarily results are not vitally affected by the choice of formula. If in a given study we compute coefficients first by one formula and then by another (as we have done in this paper) we get different absolute values, but the relative rankings of the populational groups or territorial entities tend to come out surprisingly alike, especially for the more significant highest and lowest values. We need not therefore go further into the matter of formulas here; the subject is discussed more in detail in Part 4 of this paper. What is crucial in investigations by this method is authenticity of data on a sufficient number of groups, and sharp and accurate definition of the elements involved. Ideally we should cover all the data; practically this is impossible. The principles of statistics tell us how-

ever that a genuinely random selection of a sufficient number of elements will give us the same or approximately the same results as the complete assemblage. The present study is based on a random selection of 74 elements.

The method is not exhausted with the determination of degrees of likeness of populational groups or territorial entities. Examination can be directed to degree of 'adhesion', that is to say, of co-occurrence or association, of elements themselves. Concretely, the frequency with which an optative and a dual co-exist or fail to co-exist in a given series of languages can be determined as well as the similarity of Slavic to Latin or to Sanskrit, and from the same data. The process of tabulation and counting is simply reversed: one counts in how many languages an optative and a dual co-occur instead of counting how many elements co-occur in Slavic and Latin. The findings would express what we might call linguistic types within Indo-European instead of classes of Indo-European languages. A third step is the intercorrelation of the two sets of findings. This would express the relative participation of the several classes of languages in the several linguistic types. Only the first process, the determination of classes of Indo-European languages, will be applied in this paper.

No claim can be made that this quantitative method will yield interpretations of a different order or kind from those already made in Indo-European linguistics by non-statistical methods. But these latter are, in part at least, applications of insight; and, being subjective, the best insight may sooner or later overshoot its mark. What statistical analysis can do is to validate and correct insight, or, where insight judgments are in conflict, help to decide between them. In short, it increases objectivity, sharpens findings, and sometimes forces new problems.

2. Previous Results

Czekanowski² investigated the relationships of nine Indo-European languages: Lithuanian, Old Church Slavic, Gothic, Old Irish, Latin, Greek, Vedic, Avestan, and Armenian. He employed twenty-two

² *Op. cit.* For other studies by Czekanowski applying the method to Slavic dialects see *Z Badań nad Zróżniczkowaniem Morfologicznym Dialektów Polskich* [Investigation of Morphological Differentiation of Polish Dialects], *Prac Polonistycznych* (Warsaw: 1927); *Różnicowanie się Dialektów Prastowiańskich w Świetle Kryterjum Ilościowego* [Differentiation of Ancient Slavic Dialects in the Light of Quantitative Criteria], *Sborník Pracé, I. Sjezdu Slovanských Filologů v Praze 1929* (First Congress of Slavic Philologists in Prague, 1929), Prague, 1931.

elements, which we give here, without comment, as translated from his list:

1. Surd aspirates. 2. Augment. 3. *mē*. 4. Verb-ending in *r*. 5. Conjunctive.
6. 1000 = *gheslo*. 7. *-bhis*, etc. 8. Internal *ə*. 9. Reduplicated perfect. 10. Sigmatic aorist. 11. *ō* = *ā*. 12. *-mis*, etc. 13. 1000 = *teya*. 14. *ō* = *ā*. 15. Optative. 16. Dual in verbs. 17. Relative pronoun *ye/o*. 18. Dual in nouns.
19. Spirantization of *k*, *g*, (*h*). 20. *s* becomes *š* after *i*, *u*, *k*, *r*. 21. *gʷ*, *kʷ*, *gʷh* become *g*, *k*, *gh*. 22. *t*, *d* + *t* become *ss*.

TABLES I AND II

I: Czekanowski, 20 Traits

	Li	Sl	Go	Ir	La	Gr	Ve	Av	Ar
Lithuanian	1.	.96	.57	-.72	-.91	-.57	-.50	-.28	-.21
Old Slavonic	.96	1.	.65	-.44	-.81	-.64	-.46	-.16	-.43
Gothic	.57	.65	1.	-.21	-.48	-.51	-.65	-.42	-.62
Old Irish	-.72	-.44	-.21	1.	.90	.21	.21	-.07	-.52
Latin	-.91	-.81	-.48	.90	1.	.48	.50	.02	-.32
Greek	-.57	-.64	-.51	.21	.48	1.	.65	.42	-.02
Vedic	-.50	-.46	-.65	.21	.50	.65	1.	.95	.11
Avestan	-.28	-.16	-.42	-.07	.02	.42	.95	1.	.43
Armenian	-.21	-.43	-.62	-.52	-.32	-.02	.11	.43	1.

II: Moszynski, 19 Traits

	Li	Sl	Go	Ir	La	Gr	Ve	Av	Ar
Lithuanian	1.	.96	.22	-.80	-.85	-.40	-.28	.19	.06
Old Slavonic	.96	1.	.31	-.51	-.78	-.45	.09	.33	-.17
Gothic	.22	.31	1.	.02	-.07	-.34	-.61	-.39	-.70
Old Irish	-.80	-.51	.02	1.	.95	.12	-.09	-.33	-.80
Latin	-.85	-.78	-.07	.95	1.	.19	-.18	-.49	-.65
Greek	-.40	-.45	-.34	.12	.19	1.	.59	.33	-.17
Vedic	-.28	.09	-.61	-.09	-.18	.59	1.	.95	.38
Avestan	.19	.33	-.39	-.33	-.49	.33	.95	1.	.45
Armenian	.06	-.17	-.70	-.80	-.65	-.17	.38	.45	1.

From the presence and absence in the nine languages of twenty of these elements he computed by the formula known as Q_6 the coefficients which are given in Table I. Applying the same method to a somewhat different selection of nineteen elements chosen by Moszynski, he obtained the coefficients given in Table II. These two tables he then transformed into the graphic diagrams which we reproduce as figure 1 (for Table I) and figure 2 (for Table II).

The outstanding feature of both tables is the high coefficients between Lithuanian and Old Church Slavic, between Old Irish and Latin, and

between Vedic and Avestan. For these the coefficients range between .90 and .96 as against maximum coefficients of .65 (Table I) and .59 (Table II) and many negative coefficients between other languages. In short this statistical treatment first of all affirms the well-recognized Balto-Slavic, Italo-Celtic, and Indo-Iranian groups.

As between the two tables, Moszynski's agrees better with the general opinion of Indo-European linguists. It gives Balto-Slavic and Indo-Iranian, whose closer relationship has long been accepted, positive

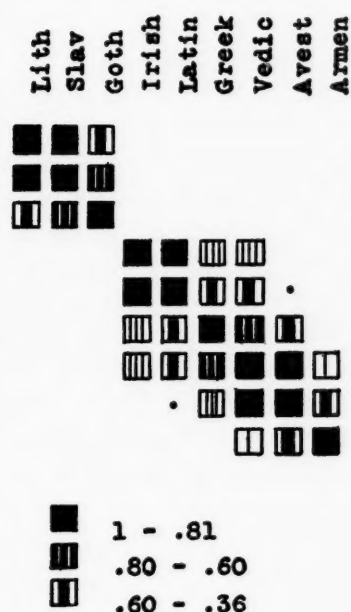


Fig. 1



Fig. 2

Figs. 1, 2.—1, left, Czekanowski, 20 elements; 2, Moszynski, 19 elements, formula Q_6 .

coefficients with each other three times out of four (.33, .19, .09, -.28) instead of the all-negative coefficients of Table I (-.16, -.28, -.46, -.50). Armenian is closer to Balto-Slavic and Indo-Iranian and more divergent from Italo-Celtic than in Table I. This again is more in agreement with current opinion. These results suggest that Moszynski's is a more genuinely random selection of elements.

Where both tables disagree violently with accepted opinion is in linking Gothic more closely with Balto-Slavic than with Italo-Celtic: .22 and .31 vs. -.07 and .02 by Moszynski's list; and, even more fla-

grantly, .57 and .65 vs. —.48 and —.21 by Czekanowski's. This strongly controverts the prevalent classification, and will be discussed later.

A minor point is that in both tables it is the Indic member of Indo-Iranian which is the closer to Italo-Celtic and Greek, and the Iranian which is the closer to Balto-Slavic, Gothic, and Armenian. The first half of this finding is difficult to reconcile with geographical position.

3. New Data and Results

Because of the historical import of linking Germanic (Gothic) so closely with Balto-Slavic and so remotely with Italo-Celtic, it seemed desirable to compile a larger list of Indo-European elements, in order to check against the possibility that the results from both Czekanowski's and Moszynski's lists involved a statistical error due to too small a sample or to a preselected one. Such a larger list was compiled by Kroeber who extracted from Meillet's *Dialectes Indo-Européens* seventy-one elements with nearly complete distributions. This list was revised by Chrétien in the following manner: no new elements were added; duplications were eliminated; multiple elements were divided into single elements; a few elements of vocabulary were dropped; and the distributions were checked with Brugmann's *Grundriss*.

The validity of the list thus compiled depends on its being a random selection. It must be emphasized that Kroeber, who originally selected the list, is not an Indo-European linguist, but an anthropologist and American Indian linguist who was choosing elements at random in an unfamiliar field. Chrétien, who revised the list, simply put the elements into a form usual among Indo-European linguists. The authors feel therefore that the random quality necessary for valid results has been achieved.

For various reasons it was impossible to get enough data on Albanian and Tocharian. It will be noticed that our basis is broader than Czekanowski's. For example, we do not use Gothic but Germanic: thus a given element is considered as it is present or absent in primitive Germanic, not in one descendent of primitive Germanic. In the main this is true of all the languages listed: we are dealing with the principal language-groups of the Indo-European family. At the same time our nine speech-groups correspond substantially to Czekanowski's.

The list of elements follows. The order given is that of their occurrence in Meillet's *Dialectes*; the chapter references are to Meillet. We have preserved this order so that the random character of the selection will be obvious.

LIST OF ELEMENTS

References

- Br: K. Brugmann and B. Delbrück, *Grundriss der Vergleichenden Grammatik der Indogermanischen Sprachen* (2nd ed., Strassburg: 1897-1916).
 K: E. Kieckers, *Einführung in die Indogermanische Sprachwissenschaft* (Munich: 1933), vol. I.
 M¹: A. Meillet, *Les Dialectes Indo-Européens* (Paris: 1922).
 M²: A. Meillet, *Introduction à l'Étude Comparative des Langues Indo-Européennes* (7th ed., Paris: 1934).
 Sommer: F. Sommer, *Handbuch der Lateinischen Laut- und Formenlehre* (2nd and 3rd ed., Heidelberg: 1914).

Chapter II

1. Assimilation of *e and *a:
M¹ 25; Br 1. §§116-20, 123-24, 128; M² 98.
2. Assimilation of *ə and *i, instead of *ə and *a.
M¹ 25, 62; Br 1. §§194-201.
3. Voiced explosive aspirate plus voiceless consonant becomes voiced explosive plus voiced aspirate (law of Bartholomae):
M¹ 25.
4. Genitive and ablative singular of *ā*-stems in -*āyā*- (-*(i)y*-):
M¹ 26.
5. Genitive plural *-*ām* replaced in vowel stems by -*n-ām*:
M¹ 26; Br 2.2. §§251-253.
6. Imperative third person in -*u*:
M¹ 26.

Chapter III

7. Assimilation of **r* **l* and **er* **el*:
M¹ 33-5; Br 1. §498; M² 117, 119.
8. Assimilation of **n* **η* and **en* **em*:
Br 1. §430; K §§34-5, 38; Sommer §§36-7, 41-2.
9. **p* ... *kx* becomes *kx* ... *kx*:
M¹ 33.
10. Genitive singular of *o*-stems in *i*:
M¹ 35; Br 2.2. §153.
11. Formative suffix **tiēn*, **tiien*:
M¹ 37; Br 2.1. §231.
12. Superlative in *-*smmo-*, *-*ismmo-*:
M¹ 37; Br 2.1. §§158-159.
13. Future in -*bō*:
M¹ 37.
14. Passive in -*r-*:
M¹ 35-6.
15. Subjunctive in -*ā-*:
M¹ 36.

- 16. Subjunctive in *-s-*:
M¹ 36-7.
- 17. Use of verbal adjective in **-to-* as past participle:
Br 2.1. §291; Br 2.3. §§834, 837-8, 840.

Chapter IV

- 18. Simplification of geminated consonants:
M¹ 43.
- 19. Present participle masculine and neuter with **-io-* inflection by analogy to feminine **-iā-* inflection:
M¹ 45.

Chapter V

- 20. *Centum* becomes *satem*:
M¹ 51; Br 1. §596.
- 21. Labio-velars become velars:
M¹ 49; Br 1. §648.

Chapter VI

- 22. Assimilation of **o* and **a*:
M¹ 54; Br 1. §§139-43, 146-8; M² 98.
- 23. **ā* and **ō* not assimilated:
M¹ 55; Br 1. §78.
- 24. Assimilation of **ā* to **ō*:
M¹ 55; Br 1. §78.
- 25. Assimilation of **ō* to **ā*:
M¹ 55; Br 1. §78.

Chapter VII

- 26. Shift of **-lt-* to *-st-*:
M¹ 57-61.

Chapter VIII

- 27. Loss of medial **ə* before a consonant:
M¹ 63; M² 101.
- 28. Loss of medial **ə* before a consonant and following a syllable containing **o*:
M¹ 68-9; M² 101.
- 29. Loss of medial **ə* before a consonant and after a vowel plus **i*:
M¹ 66-7, 70.

Chapter IX

- 30. Shift of **-yi-* to **-ui-*:
M¹ 71-4; Br 1. §320.

Chapter X

31. Voiced explosive aspirates remain unchanged:
M¹ 74; M² 87.
32. Voiced explosive aspirates become voiced explosives:
M¹ 74; M² 87.
33. Voiced explosive aspirates become spirants:
M¹ 74-6; M² 87.

Chapter XI

34. Voiceless explosive aspirates and voiceless explosives kept distinct:
M¹ 78-80; M² 85.
35. Voiceless explosive aspirates partly assimilated to voiceless explosives:
M¹ 78-80; M² 85.
36. Voiceless explosive aspirates wholly assimilated to voiceless explosives:
M¹ 78-80; M² 85.
37. Voiceless explosive aspirates become spirants:
M¹ 78-80; M² 85.

Chapter XII

38. *s becomes š after *i, u, r, k* regularly:
M¹ 84; Br 1. §819.
39. *s becomes š after *i, u, r, k* only when a vowel of the same word follows:
M¹ 84-5.
40. *s becomes *h* when (a) initial, (b) intervocalic, or (c) before or after a consonant not a stop:
M¹ 86-87.

Chapter XIII

41. Voiceless explosives become spirants:
M¹ 91; M² 85.
42. Voiced explosives become voiceless explosives:
M¹ 90-1; M² 88.

Chapter XIV

43. Augment:
M¹ 97.

Chapter XV

44. Reduplicated perfect regular:
M¹ 103.
45. Reduplication occasional:
M¹ 105-6.
46. No reduplication:
M¹ 104.
47. Perfect is preserved:
M¹ 103.

48. Preterite is derived partly from perfect and partly from aorist:
M¹ 108.
49. Preterite is derived entirely from aorist:
M¹ 104.

Chapter XVI

50. Verbal suffix **-ie-/*-io-* used for derivatives; suffix **-i-* for states:
M¹ 109.
51. Verbal suffixes **-ie-/*-io-* and **-i-* used for derivatives:
M¹ 113.
52. Verbal suffix **-ie-/*-io-* used for derivatives and states; suffix **-i-* not so used:
M¹ 109.

Chapter XVII

53. Verbal abstracts of the type root plus **o/*ā* frequent:
M¹ 115; Br 2.1. §§90-2.
54. Verbal abstracts of the type root plus **o/*ā* not frequent, but more than sporadic:
M¹ 115; Br 2.1. §§90-2.
55. Verbal abstracts of the type root plus **o/*ā* sporadic:
M¹ 115; Br 2.1. §§90-2.
56. Comparative in **-ies-, *-ios-, *-is-*:
M¹ 114; Br 2.1. §§423, 429-30, 432, 435, 440.
57. Comparative in **-isen-, *-ison-*:
M¹ 115; Br 2.1. §§425, 430, 436, 439.
58. Suffix **-tero-, *-toro-, *-tro-* used for comparative:
M¹ 114; Br 2.1. §§238, 240.
59. Suffix **-tero-, *-toro-, *-tro-* used in certain words originally comparative, but which have lost the comparative force:
M¹ 114; Br 2.1. §§238, 240.
60. Participles formed by suffix **-lo-*:
M¹ 114-5.
61. **o-* stems are feminine as well as masculine:
M¹ 116.
62. Suffix **-tūt-* forms abstract nouns commonly:
M¹ 115; Br 2.1. §343.
63. Suffix **-tūt-* forms abstract nouns rarely:
M¹ 115; Br 2.1. §343.
64. Suffix **-tūt-* not used:
M¹ 115; Br 2.1. §343.
65. Collective numbers in **-o-* (Sk *trayáh*):
M¹ 116; Br 2.2. §81.
66. Collective numbers in **-no-* (Lat *trīnī*):
M¹ 116; Br 2.2. §82.
67. Comparative in **-ies-, *-ios-, *-is-* lacks feminine:
M¹ 115.

Chapter XVIII

68. Case suffix in **-bh-* replaced by case suffix in **-m-*:
M¹ 119; Br 2.2. §§275, 287.
69. Locative plural in **-su-*:
M¹ 123; Br 2.2. §262.
70. Breakdown of original case system and amalgamation of the functions of dative, ablative, locative, instrumental:
M¹ 120-2.

Chapter XIX

71. Nominative plural of **o-*stems in *-oi* under influence of demonstrative:
M¹ 124-5; Br 2.2. §219.
72. Nominative plural of **ā-*stems in *-āi* on analogy of **o-*stems:
M¹ 124-5.
73. Genitive plural of **ā-*stems uses demonstrative form (**-āsōm*):
M¹ 125; Br 2.2. §256.

Chapter XX

74. Forms of **bheya-* 'to grow' partly replace **es-* 'to be':
M¹ 126.

For the benefit of anyone who would care to examine these elements from the point of view of systematic grammar, the following classification is given:

1. Phonology: Total 30.
 - a. Vowels: Total 12.
1, 22, 2, 7, 8, 23, 24, 25, 27, 28, 29, 30.
 - b. Consonants: Total 18.
41, 34, 35, 36, 37, 42, 31, 32, 33, 3, 20, 21, 26, 38, 39, 40, 9, 18.
2. Morphology: Total 44.
 - a. Nouns: Total 17.
4, 10, 71, 72, 68, 5, 73, 69, 70, 61, 11, 53, 54, 55, 62, 63, 64.
 - b. Adjectives: Total 8.
65, 66, 56, 67, 57, 58, 59, 12.
 - c. Verbs: Total 19.
13, 43, 44, 45, 46, 47, 48, 49, 14, 15, 16, 6, 60, 19, 17, 50, 51, 52, 74.

It will be noticed that we confine our study to phonology and morphology, and that there is a fairly even distribution of elements over these fields. This evenness is, of course, purely random, since no effort was made to attain it when Kroeber selected the list.

Here follows the tabulation of occurrences, which we give to permit checking both on our presence and absence decisions and on our counting.

TABULATION OF OCCURRENCES

	Ce	It	Gr	Ar	Ir	Sk	Sl	Ba	Ge		Ce	It	Gr	Ar	Ir	Sk	Sl	Ba	Ge
1	-	-	-	-	+	+	-	-	-	38	-	-	-	?	+	+	-	-	-
2	-	-	-	-	+	+	-	-	-	39	-	-	-	?	-	-	+	(+)	-
3	-	-	-	-	+	+	-	-	-	40	-	-	+	+	+	-	-	-	-
4	+	-	-	+	+	+	-	-	-	41	-	-	-	+	-	-	-	-	+
5	-	-	-	-	+	+	-	-	(+)	42	-	-	-	+	-	-	-	-	+
6	-	-	-	-	+	+	-	-	-	43	-	-	+	+	+	+	-	-	-
7	-	-	+	+	-	-	-	+	+	44	-	-	+	?	+	+	-	-	-
8	+	+	-	+	-	-	-	+	+	45	+	+	-	-	-	-	-	-	+
9	+	+	-	-	-	-	-	-	-	46	-	-	-	-	-	-	+	+	-
10	+	+	-	-	-	-	-	-	-	47	-	-	+	(+)	+	+	-	-	-
11	+	+	-	-	-	-	-	-	-	48	+	+	-	-	-	-	-	-	+
12	+	+	-	-	-	-	-	-	-	49	-	-	-	-	-	-	+	+	-
13	+	+	-	-	-	-	-	-	-	50	-	-	-	+	-	-	+	+	-
14	+	+	-	-	-	-	-	-	-	51	+	+	-	-	-	-	-	-	+
15	+	+	-	-	-	-	-	-	-	52	-	-	+	-	+	+	-	-	-
16	+	+	-	-	-	-	-	-	-	53	-	-	+	-	+	+	+	+	-
17	+	+	-	-	+	+	+	+	-	54	-	-	-	-	-	-	-	-	+
18	-	-	-	+	-	-	+	+	-	55	+	+	-	-	-	-	-	-	-
19	-	-	-	-	-	-	+	+	+	56	+	+	+	-	+	+	+	-	-
20	-	-	-	+	+	+	+	+	-	57	-	-	+	-	-	-	-	+	+
21	-	-	-	+	+	+	+	+	-	58	+	-	+	-	+	+	-	-	-
22	-	-	-	-	+	+	+	+	+	59	-	+	-	-	-	-	-	-	+
23	-	+	+	+	-	-	-	-	-	60	-	-	-	+	-	-	+	-	-
24	-	-	-	-	-	-	-	+	+	61	-	+	+	+	-	-	-	-	-
25	+	-	-	-	+	+	+	-	-	62	+	+	-	-	-	-	-	-	-
26	-	-	+	?	+	+	+	+	-	63	-	-	-	-	+	-	-	-	+
27	-	-	-	+	+	-	+	+	+	64	-	-	+	+	-	+	+	+	-
28	?	+	+	(+)	(+)	-	(+)	(+)	(+)	65	-	-	-	-	+	+	+	+	-
29	-	-	-	-	-	+	-	-	-	66	-	+	-	-	-	-	-	+	+
30	-	-	-	-	+	-	+	+	+	67	+	+	+	-	-	-	-	-	-
31	-	-	-	-	-	+	-	-	-	68	-	-	-	(-)	-	-	+	+	+
32	+	-	-	+	+	-	+	+	-	69	-	-	-	+	+	+	+	+	-
33	-	+	+	-	-	-	-	-	+	70	+	+	+	-	-	-	-	-	+
34	-	-	+	(+)	+	+	(-)	-	-	71	+	+	+	-	-	-	+	+	-
35	-	-	(-)	+	-	-	(+)	-	-	72	-	+	+	-	-	-	-	-	-
36	+	+	(-)	-	-	-	(+)	+	+	73	-	+	+	-	-	-	-	-	-
37	-	-	+	(-)	+	-	-	-	+	74	+	+	-	-	+	+	+	+	+

We have marked a number of entries in the tabulation as (+) and (-). The ordinary plus and minus indicate that the statement of the element is universally true or not true. When enclosed in parentheses they indicate that the statement is generally but not universally true or not true. We have counted (+) as +, and (-) as -. The question

TABLE III

Kroeber-Chrétien, 74 elements, formula Q_6

	Ce	It	Gr	Ar	Ir	Sk	Sl	Ba	Ge
Celtic	1.	.87	-.25	-.46	-.30	-.30	-.18	-.30	-.12
Italic	.87	1.	.09	-.48	-.66	-.63	-.40	-.35	.11
Greek	-.25	.09	1.	.25	.22	.28	-.84	-.16	-.17
Armenian	-.46	-.48	.25	1.	.22	.05	.31	.28	-.18
Iranian	-.30	-.66	.22	.22	1.	.91	.32	.12	-.22
Sanskrit	-.30	-.63	.28	.05	.91	1.	.20	.10	-.54
Slavic	-.18	-.40	-.84	.31	.32	.20	1.	.92	-.11
Baltic	-.30	-.35	-.16	.28	.12	.10	.92	1.	.32
Germanic	-.12	.11	-.17	-.18	-.22	-.54	-.11	.32	1.

mark indicates that information is lacking, and the entry omitted from computation.

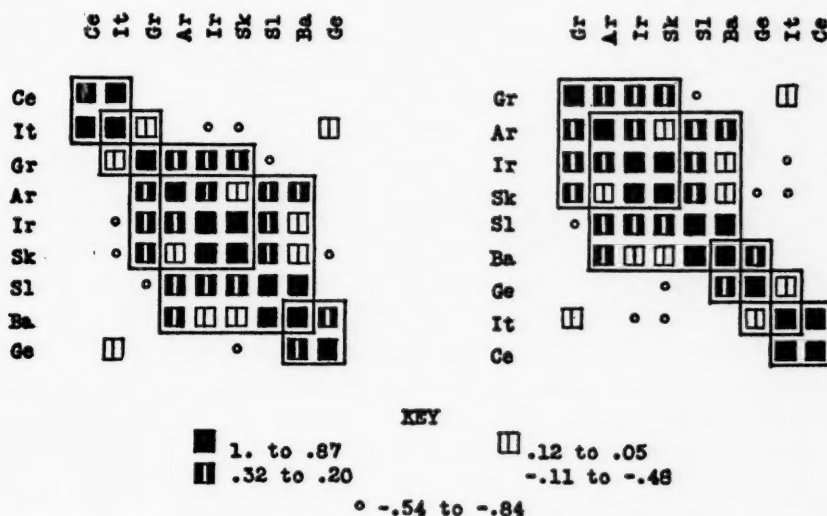


Fig. 3a

Fig. 3b

Figs. 3a, 3b.—74 elements, formula Q_6

From the tabulation just given we have determined the values of a , b , c , and d for each pair of language-groups, and then, using formula Q_6 , have computed the coefficients. These will be found in Table III. The graphic representation of this table we give as figures 3a and 3b.

In a situation like the present one, where the primary relationships more or less go round a ring, the order of arranging the languages in the table is arbitrary. In the order given, however, the related languages

are grouped together, as will be seen in figure 3a. Only Germanic-Italic falls off the diagonal. Figure 3b gives a slightly different order, which brings Germanic-Italic on the diagonal, but drops Greek-Italic into the corner.

It is now time to examine the findings of Table III. The three outstandingly high coefficients are Baltic-Slavic .92, Iranian-Sanskrit .91, and Italic-Celtic .87. From these there is a long drop to the next highest coefficients, Baltic-Germanic .32, and Iranian-Slavic .32. The three high coefficients, then, agree with all non-statistical judgments, even to ranking the Italic-Celtic similarity a little lower than the Baltic-Slavic and the Iranian-Sanskrit.

In figures 3a and 3b we have indicated by square boxes those groups of languages which have positive coefficients *with each other*. These boxes give us some very interesting results. In the first place they affirm the existence of a *satem* group of languages. And the range of the coefficients within this group is interesting because it seems to coincide with geography. Armenian, which lies geographically between Slavic and Iranian (disregarding intervening languages), with Baltic out beyond Slavic and Sanskrit out beyond Iranian, occupies this same position according to the coefficients: .31 with Slavic, but only .28 with Baltic; .22 with Iranian, but only .05 with Sanskrit. Likewise Baltic is nearer to Iranian (.12) than to Sanskrit (.10); Slavic is nearer to Iranian (.32) than to Sanskrit (.20); Iranian is nearer to Slavic (.32) than to Baltic (.12); Sanskrit is nearer to Slavic (.20) than to Baltic (.10). Confining ourselves, for the moment, to these five languages, we see that the coefficients correspond in range to the geographical positions of the languages. This is very interesting and suggests the possibility of a correlation between geographical factors and degree of similarity. We must point out here that this verdict of our coefficients corresponds with the general linguistic opinion.

Though our coefficients show the existence of a *satem* group, they do not indicate a *centum* group. Of the remaining languages, Greek has the highest number of positive coefficients. Its closest affinities are to Sanskrit (.28), Armenian (.25), and Iranian (.22). The only other positive coefficient is the very low one (.09) with Italic. In other words, Greek has more in common with the *satem* languages than with the *centum*—except the one characteristic which serves to distinguish *satem* and *centum* languages! This all seems to mean one thing: that the division into *centum* and *satem* languages was a purely arbitrary, not an organic division, but that, so far as the *satem* languages were

concerned, it happened, accidentally, to be right. Modern linguistic opinion has generally recognized the difficulties of the *centum-satem* classification, and our statistical method confirms this opinion.

So far the results of the objective method of counting have been, in the main, in accord with the subjective judgments of linguists. But when we come to Germanic the two methods diverge. Germanic has only two positive coefficients, with Italic (.11), and with Baltic (.32). Linguistic opinion grants Germanic a high degree of disparity with other Indo-European languages. Some linguists would concede it a relation with Italo-Celtic, but all they mean is that of all its distant relationships, the Italo-Celtic is least distant. Our coefficients, however, link it definitely to two languages which have with each other a negative coefficient ($-.35$). The question before us now is this: when the objective and the subjective methods diverge, which shall we follow? On the one side stands Meillet, representative certainly of linguistic opinion, who devotes half of chapter XX of his *Dialectes* to the Germanic-Italic-Celtic group, and in his Conclusion describes them as a natural group. On the other side stands the statistical treatment of his own data.

If Meillet's judgment is right, then the statistical technique is inapplicable. Yet if so, why the close agreement at all previous points between the objective and the subjective, the statistical and the linguistic findings? This would appear to be one of the times when the best insight nods and makes a partially misjudged evaluation. One observes a certain affiliation which is real enough, but perhaps secondary; thereafter he notes mentally every corroborative item, but unconsciously overlooks or weighs more lightly items which point in other directions. Kroeber has done this very thing in his specialty of Californian ethnography—until the coefficients were worked out. After all, nine languages present thirty-six interrelations, and that a scholar should estimate two or three of these somewhat too high or too low is almost inevitable.

We must conclude then that, unless the method or its application (i.e. the selection of the seventy-four elements used) is faulty, the nearest relatives of Germanic are Baltic and Italic. Moreover, the next nearest (though the coefficients are negative) are Slavic ($-.11$) and Celtic ($-.12$). The arithmetical mean of Germanic with Baltic and Slavic is .11, with Italic and Celtic is $-.01$. Germanic is thus to be linked with the first two rather than the second two; or better, it occupies a more or less medial position between the two groups, with a leaning towards the Balto-Slavic.

Our coefficients differ in absolute value from both the Czekanowski and the Moszynski coefficients, but their relative rankings are about the same as those of the Moszynski table, and agree to a considerable extent with those of the Czekanowski table. It ought not be difficult to list practically complete distribution for two hundred or more elements. But the closeness with which the major findings from nineteen or twenty elements have been corroborated by those from seventy-four elements makes it seem likely that a re-tripling of the material will not revolutionize results. In short, even a quite small sample of Indo-European material is likely to yield approximately valid results, provided it is wholly random.

4. Methodology

The basic formula for determining the coefficient of association or similarity is generally considered to be Karl Pearson's 'tetrachoric R'. This is not convenient to handle as it involves elaborate computation. The formula Q_6 , which we have used, is as follows:

$$Q_6 = \sin \left[\frac{\pi}{2} \left(\frac{ad - bc}{\sqrt{(a+b)(a+c)(b+d)(c+d)}} \right) \right]$$

Some statisticians prefer to simplify this by omitting the sine and the $\pi/2$. Thus we would have

$$Q = \frac{ad - bc}{\sqrt{(a+b)(a+c)(b+d)(c+d)}}$$

It is obvious that this will give the same relative results as Q_6 , since the omitted elements do not involve the statistical data.

Another formula, a good deal simpler than Q_6 , is the following:

$$Q_2 = \frac{ad - bc}{ad + bc}$$

This computes much more quickly than Q_6 and gives usually not very different results, but it cannot be used where a , b , c , or d is zero, because the coefficient is then either 1 or -1 . For a distribution like a 50, b 25, c 25, and d 0, that is, 50 agreements against 50 disagreements, a coefficient like -1 (which means complete negative correlation) is obviously misrepresentative. For comparison we add in Table IV the Q_2 coefficients on the present set of data.

The spread of coefficients by Q_2 is wider than by Q_1 but the graphical representation (fig. 4) shows that the relative rankings are identical for the positive values.

TABLE IV

Kroeber-Chrétien, 74 elements, formula Q_2

	Ce	It	Gr	Ar	Ir	Sk	Sl	Ba	Ge
Ce	1.	.94	-.37	-.67	-.41	-.42	-.26	-.42	-.17
It	.94	1.	.13	-.66	-.81	-.82	-.54	-.47	.15
Gr	-.37	.13	1.	.35	.30	.39	-.33	-.23	-.25
Ar	-.67	-.66	.35	1.	.29	.07	.42	.38	-.27
Ir	-.41	-.81	.30	.29	1.	.96	.42	.15	-.31
Sk	-.42	-.82	.39	.07	.96	1.	.26	.17	-.75
Sl	-.26	-.54	-.33	.42	.42	.26	1.	.96	-.15
Ba	-.42	-.47	-.23	.38	.15	.17	.96	1.	.43
Ge	-.17	.15	-.25	-.27	-.31	-.75	-.15	.43	1.

TABLE V

Kroeber-Chrétien, 74 elements, formula W

	Ce	It	Gr	Ar	Ir	Sk	Sl	Ba	Ge
Ce	1.	.85	.49	.42	.44	.45	.49	.45	.52
It	.85	1.	.57	.39	.30	.32	.41	.42	.57
Gr	.49	.57	1.	.64	.59	.59	.49	.50	.51
Ar	.42	.39	.64	1.	.60	.57	.64	.63	.50
Ir	.44	.30	.59	.60	1.	.87	.62	.55	.46
Sk	.45	.32	.59	.57	.87	1.	.60	.53	.38
Sl	.49	.41	.49	.64	.62	.60	1.	.88	.51
Ba	.45	.42	.50	.63	.55	.53	.88	1.	.64
Ge	.52	.57	.51	.50	.46	.38	.51	.64	1.

A third formula which we may use is W .

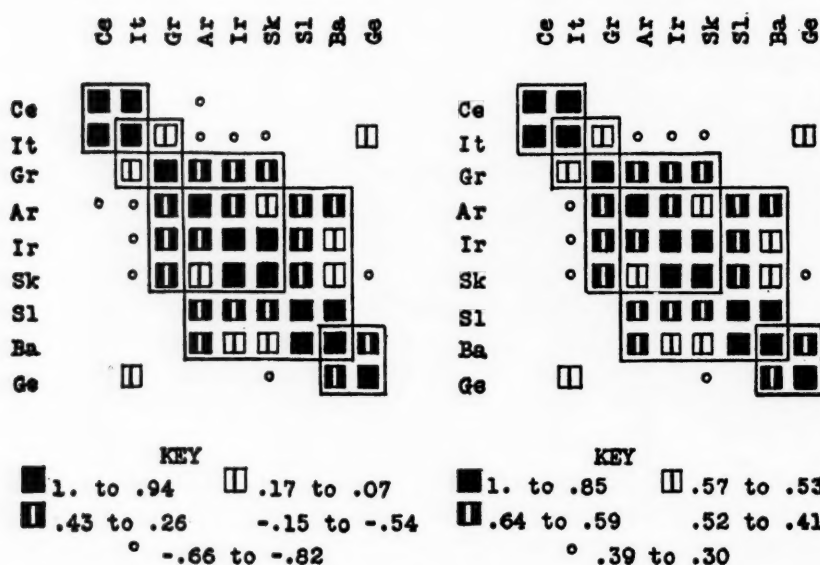
$$W = \frac{a + d}{a + b + c + d}$$

This is simply the total of agreements, positive and negative, divided by the total number of agreements plus disagreements. Table V gives these coefficients.

It will be seen from figure 5, which represents Table V, that the rank order in the main is like that of Q_6 . A closer examination of the table will show shifts of relationship, however, among those languages which lie close together. The values by this formula will lie between +1 and zero. W does not seem to have been analyzed by statistical theorists, but its logical transparency may commend it.

We have given these various tables and diagrams with this end in view: to show that formula does not matter very materially, as we have already said in Part 1. What matters is the value of the sample of data used. As we have indicated before, the sample must be genuinely random, of sufficient size, and made up of elements sharply defined.

At least two methodological doubts which may have arisen need to be considered. The first is the problem of equivalence of elements. For example, is a locative plural in *-su* more or less important than a reduplicated perfect? and if these two are not of equal importance, is it right to treat them so in our list of elements? The answer is that



Figs. 4, 5.—74 elements. 4, left, formula Q_2 ; 5, formula W

statistical analysis presupposes, ideally, the inclusion of all the elements of the field or universe of observation, and practically, at least a thoroughly random sample. If the sample is really random, and not too small, there is very little likelihood that the more fundamental elements will co-occur mainly in one grouping or pattern, and the more trivial elements in a different pattern, among the languages being compared. Why should they? And statistical experience in other fields is to the contrary.

In the second place, negative elements may occasion some doubts. The answer is that if four Indo-European languages possess augment

and five do not, the absences mean as much as the presences. Thus a common absence in Baltic and Germanic is a *point of similarity between the two*, which is certainly as important in comparing them as its co-occurrence in, let us say, Greek and Sanskrit is significant in comparing these latter. Likewise its presence in Greek and its absence in Italic is of significance in a comparison between these two. Fundamentally what are being compared are agreements (*a* and *d*) and disagreements (*b* and *c*).

Of course elements whose distribution is wholly negative in the particular universe which is being examined must be excluded. Naturally such elements are not a part of the universe under consideration. Likewise elements whose distribution is universally positive should be omitted: they prove nothing and tend to smear the results by preventing pertinent spread of coefficients.

The seventy-four elements here dealt with are prevailingly negative in their Indo-European distribution: plus, 237 (36%); minus, 424 (64%) ? , 5. This means that an element occurs, on an average, in three of the nine languages considered. This means that in every one of the thirty-six interrelationships, common absences (*d*) will outweigh common presences (*a*). Thus for Baltic-Slavic we have $a = 23$, but $d = 42$. Where the similarity is remote the disproportion is greater: thus in Germanic-Sanskrit, $a = 3$, but $d = 25$. So long as the elements occur, in the mean, in only three languages out of nine, this heavy occurrence of common absences must be accepted. And this heavy occurrence has a meaning: it recalls to our attention the fact that the nine languages are, after all, nine different languages, already widely diversified when they are first encountered in history, in spite of the indubitable unity in their origin; and this fact does not make the investigation of the respective degrees of their inter-relationships any less sound a problem than if they were more similar to one another.

However, since experience in other fields has shown that shared absences will be felt by some as less significant than shared presences, the problem will be reapproached with the common absences, *d*, omitted. A formula that has actually been used in other fields is $a/(a + b)$, that is, the ratio of elements present in, let us say, languages I and II to the number of elements present in language I. To complete the picture, $a/(a + c)$ should be computed for language II. Except when *b* and *c* happen to be equal, the two values are unlike, and this prevents symmetrical diagramming. This difficulty can be overcome by taking the arithmetical mean of the two values (*A*) or the geometrical mean

(G). Both A and G have been employed by Driver and Kroeber in ethnography,³ and the results, in the cases tested, come out not very different from those by the other formulas. There is, however, a theoretical objection to A and G which Driver has subsequently pointed out.⁴ They omit *d* because it is wholly concerned with absences; but *b* and *c* also include absences because they refer to distributions in which an element is lacking in one entity, though present in the other. If only positive elements ought to be dealt with, the negatives implied

TABLE VI
Kroeber-Chrétien, 74 elements, elements shared (a)

	Ce	It	Gr	Ar	Ir	Sk	Sl	Ba	Ge
Ce	—	21	5	3	7	6	7	6	7
It	21	—	10	4	4	3	6	7	11
Gr	5	10	—	9	12	10	6	7	6
Ar	3	4	9	—	11	8	11	11	6
Ir	7	4	12	11	—	24	15	13	8
Sk	6	3	10	8	24	—	12	10	3
Sl	7	6	6	11	15	12	—	23	8
Ba	6	7	7	11	13	10	23	—	13
Ge	7	11	6	6	8	3	8	13	—

TABLE VII
Kroeber-Chrétien, 74 elements, isoglosses (b + c)

	Ce	It	Gr	Ar	Ir	Sk	Sl	Ba	Ge
Ce	—	11	37	40	41	40	37	40	35
It	11	—	32	43	52	50	44	43	32
Gr	37	32	—	25	30	30	38	37	36
Ar	40	43	25	—	28	30	25	26	35
Ir	41	52	30	28	—	10	28	33	40
Sk	40	50	30	30	10	—	30	35	46
Sl	37	44	38	25	33	30	—	9	36
Ba	40	43	37	26	28	30	9	—	27
Ge	35	32	36	35	40	46	36	27	—

in *b* and *c* make these as inadmissible, theoretically, as the patent double negatives of *d*. The A and G formulas, which are based on *a*, *b*, and *c*, are therefore perhaps less sound than *Q*₁, *Q*₂, or *W*, which are based on *a*, *b*, *c*, and *d*. It may be best to restrict them to situations in which the data have been worked out with explicitness only for positive

³ Quantitative Expression of Cultural Relationships, Univ. Calif. Publ. Am. Arch. Ethn. 31. 211-56, 1932.

⁴ In ms.

occurrences; and even in such situations the A and G results presumably have only approximate significance.

There is a method, however, which makes use of *a*, *b*, and *c*, without using *d*. This calls for two tables. In Table VI we give the elements shared (*a*) for the universe under observation. In Table VII we give the sum of disagreements (*b* + *c*). This may be used as an inverse index of relationship. Every occurrence of *b* or *c* means that an isogloss passes between the two languages being compared. The fewer these

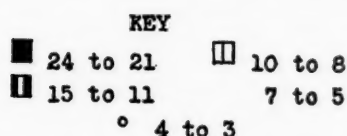
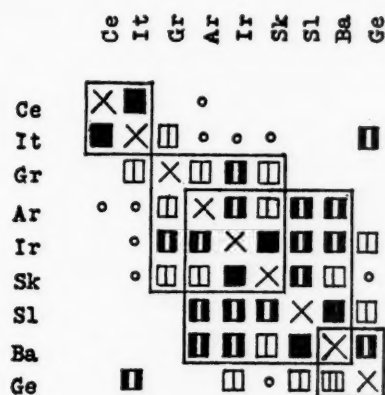


Fig. 6

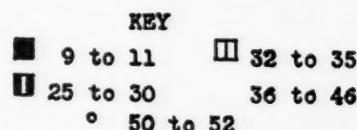
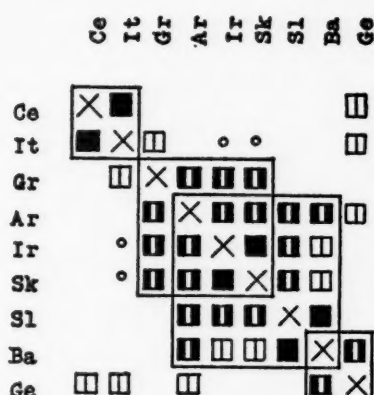


Fig. 7

Figs. 6, 7.—74 elements. 6, left, elements shared (*a*); 7, isoglosses (*b* + *c*)

separating isoglosses the closer are the two languages. These two tables are represented in figures 6 and 7 respectively.

The general resemblance of these two tables and diagrams to the others is evident. As between the two tables, where *a* is high, *b* + *c* is low; where *a* is low, *b* + *c* is high. All in all, the truest picture is probably given by the use of *a*, *b*, *c* and *d*; but if any one hesitates about the significance of *d*, he will still reach closely similar results by using *a* alone, or *b* + *c*.

THE ETYMOLOGY OF HITTITE *yukas*

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Sturtevant in HG¹ 144, speaking of relatively transparent noun-compounds in Hittite, goes on to say 'One may be almost equally sure that *tayukas* (*ta-a-i-ú-ga-aš*, *da-a-i-ú-ga-aš*, *ta-a-ú-ga-aš*) 'two years old' beside *yukas* (*i-ú-ga-aš*) 'one year old' is a compound whose prior member is akin to *tan* (*ta-a-an*, *da-a-an*) 'iterum, second'; but our ignorance of the etymology of the second member makes its classification impossible'. This article is an attempt to explain the word *yukas* 'yearling'.²

In SH 93 Hrozný suggests an etymological connection of *yukas* with Goth. *juggs* 'young' and Lat. *iuvencus* 'bullock', which Sturtevant LANG. 6.215 accepts as a possibility, although he finds a difficulty in the loss of the nasal, since a nasal before a guttural is apparently retained in Hittite (cf. *lenkais* 'oath' with Gk. *ἐλεγχος*, *kank-* 'hang' with Goth. *hāhan*).³ Pedersen suggests (MS 68) for *tayukas*, offering no comment whatsoever, a connection with Lith. *dveigys* 'zweijährig'. But this appears indefensible when we take into consideration the fact

¹ The abbreviations in this article are: AU = Ferdinand Sommer, *Die Aḫḫi-javā-Urkunden*; HChr = E. H. Sturtevant, *A Hittite Chrestomathy*; HG = E. H. Sturtevant, *A Comparative Grammar of the Hittite Language*; IF = *Indogermanische Forschungen*; JAOS = *Journal of the American Oriental Society*; KBo = *Keilschrifttexte aus Boghazköi*; LANG. = *Language*; MS = A. Götze and H. Pedersen, *Muršilis Sprachlähmung*; SH = Friedrich Hrozný, *Sprache der Hethiter*; WP = A. Walde and J. Pokorny, *Vergleichendes Wörterbuch der indogermanischen Sprachen*.

² *yukas* and *tayukas* are used for horses and cattle. For example in KBo 6.6.1.40-42 we read, *ták-ku ša-a-ú-i-te-eš-za U-UL ANŠU. KUR. RA. MAḪ* *ták-ku i-ú-ga-aš U-UL ANŠU. KUR. RA. MAḪ* *ták-ku da-a-i-ú-ga-aš a-pa-aš ANŠU. KUR. RA. MAḪ* 'if it is less than a year old it is not a grown horse; if it is one year old it is not a grown horse; if it is two years old, then it is a grown horse'. Cf. also KBo 6.3.26 and HChr 221. *yukassas* 'yearling' has the *-sas* suffix, cf. HG 161 and KBo 6.26.3.16.

³ HG 116, 118.

that *yukas*, unlike the Lithuanian element, appears uncompounded with the meaning 'one year old', and further when we realize that the Lithuanian word must be divided *dvei-gỹs*, cf. *trei-gỹs*, *ketvėr-gis*, and its accepted etymon Gk. $\delta\iota\chi\alpha$.⁴

We relate Hittite *yukas* to the neuter *yukan* 'yoke': Skt. *yugám*, Gk. $\zeta\upsilon\gamma\acute{o}\nu$, Lat. *iugum*, Goth. *juk*. But *yukas* shows the *eu* or *ou* grade, and corresponds in ablaut with Skt. *yógas*, Gk. $\tau\acute{o}\ \zeta\epsilon\upsilon\gamma\acute{o}\varsigma$, Lat. *iūgis*, ON. *eykr* from Gmc. **jaukiz*. We thus establish the proportion *yukas* : *yukan* = *yógas* : *yugám*. Striking as this phonetic correspondence is, the semantic parallels in the Indo-European languages are equally impressive. First we have ON. *eykt* (from Gmc. **jaukiþō* = Lat. *iūgitas* 'eternity, time') 'Arbeitszeit zwischen den Mahlzeiten' (WP 1.202), that is to say, the period between the yoking of animals for work in the morning and the unyoking in the evening. The second stage of this semantic development is represented by Hittite *yukas* 'of one year', that is, the time between the yoking of the animals from one spring to the next, when the yearly work was resumed. The third stage in the semantic expansion is represented by Skt. *yugám*,⁵ which, beside 'yoke', signifies a linking of years of indefinite number. For example a decade is most certainly indicated in RV 1.158.6, where the aged Dīrghatamas is spoken of as having attained to the 'tenth age', *daśame yuge*. It also means a generation of mankind as, for example, *uttarā yugāni*, RV 3.33.8. The word is used for each of the four great world-periods of varying length, as in the Mānava-dharma-sāstra and later literature. The final development is in Lat. *iūgis* 'perpetual, continual'. The psychology behind this semantic progression offers no difficulty. The Sun, by which time was measured, yoked and unyoked his horses daily in Greek and Indo-Iranian mythology. For example, in RV 1.115.4 Surya surprises Night in the midst of her toil when he yokes his horses from their stall (*yaded ayukta haritah sadhasthāt*) to begin the day's journey.⁶

The possibility of a connection between Lat. *iūgis* and Skt. *āyus* 'life', Gk. $\alpha\iota\acute{\omega}\nu$, Lat. *aevum*, Goth. *aiweins* and *aju-k-duþs* 'time, eternity' (on which see WP 1.202 and references) seems to us rather slight, for we

⁴ Cf. Hahn, Some Hittite Words in *ta-*, LANG. 12.114, fn. 43.

⁵ Götze, IF 43.373, suggests the possibility of *yukas* being related with *yugam*, but drops the matter there.

⁶ We are indebted to Professor Bender for the interpretation of this as a morning scene, though the traditional interpretation of evening would not alter our case.

should expect, among other considerations, the initial *a* to be retained in Latin and Hittite. Our establishing an Indo-Hittite origin for Hittite *yukas* further strengthens Sommer's and Sturtevant's conclusions that *yukan* was not borrowed from India as Götze was inclined to think.⁷

⁷ Sommer AU 164, Sturtevant, JAOS 54.400, and Götze, loc. cit.

GERUNDS IN BUDDHIST HYBRID SANSKRIT

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In SP and LV the Sanskrit gerund endings *tvā* and *ya* are used virtually as in Sanskrit. In addition several Prakritic endings are used. Their application is radically different in two ways: (1) No distinction is made between simple and compound bases. (2) The endings are attached not to the 'root' as ordinarily in Skt., but to a thematic present stem (often one which is itself Prakritic and unknown to Sanskrit). This thematic present stem, incidentally, shows a tendency to make itself the base for the whole verb conjugation.

1. In no department of grammar does Buddhist Hybrid Sanskrit¹ show more definite and marked divergence from normal Classical Sanskrit than in its gerund forms.

¹ On this language see my articles: 'The Prakrit underlying Buddhistic Hybrid Sanskrit', BSOS 8.501-16; 'Nouns of the *a*-declension in Buddhist Hybrid Sanskrit', HJAS 1.65-83; 'The Meter of the Saddharmapundarika', KSCV 39-45; 'The Aorist in Buddhist Hybrid Sanskrit', JAOS 57.16-34. Reprints of most of these are still in the possession of the author, who will gladly distribute them gratis, as long as they last, to responsible scholars on request. The first-mentioned contains a statement of the whole problem in general terms. I use the term 'protocanonical Prakrit' of the hypothetical Prakrit dialect on which the bastard Sanskrit of the Buddhists was based. The forms used in this article are taken almost wholly from SP and LV; all from verses except those specified as prose. The following abbreviations are used:

AMg.: Ardhamāgadhī.

Ap.: Apabhramśa.

BSkt.: Buddhist (Hybrid) Sanskrit.

BSOS: Bulletin of the School of Oriental Studies, London.

Calc.: see under LV.

Foucaux: Ph. E. Foucaux, *Rgya Tch'er Rol Pa* (Tibetan LV., ed. and transl.), Paris, 1847-8; or, the same author's translation of the Sanskrit LV (1884, 1892).

Geiger: Wilhelm Geiger, Pali, Strassburg, 1916.

HJAS: Harvard Journal of Asiatic Studies.

JAOS: Journal of the American Oriental Society.

JM: Jaina Māhārāṣṭrī.

JRAS: Journal of the Royal Asiatic Society.

KSCV: Kuppaswami Sastri Commemoration Volume, Madras, n.d. [1936].

Lañk.: Lañkāvatāra Sūtra, ed. Nanjio, Kyoto, 1923.

2. The Classical gerund formations are well-known and simple. Aside from the rather rare forms in *am* (Whitney 995), the only endings are *tvā* (sometimes in the form *itvā*, see next paragraph) and *ya*. The former is used with simple roots, the latter with compound roots. Exceptions to this distinction occur especially in the epic, rarely in strictly classical Sanskrit. Of compound roots employing *tvā*, the majority use forms based on *aya* presents, namely in *ayitvā*. Uncompounded gerunds in *ya* are nearly limited to a small group of forms, the commonest of which is *grhya*; another mentioned by Renou as fairly common is *sthāpya*. Renou 124, which see on this whole subject, believes they are to be explained on the ground that these roots are 'habitually used with preverbs', but I doubt whether this is more true of them than of many other roots.

3. The use of *itvā* instead of *tvā* probably started with the forms based on *aya* presents (causatives and denominatives),² just referred to,

LV: Lalitavistara, referred to by page and line of Lefmann's edition; the Calcutta (Bibliotheca Indica) edition is occasionally referred to as Calc.

m.c.: metri causa.

Mhv.: Mahāvastu, ed. Senart.

O: collective siglum used by Kern and Nanjio in referring to the readings of a group of fragmentary mss. of the Kashgar recension of SP.

Pischel: R. Pischel, Grammatik der Prakrit-Sprachen, Strassburg, 1900.

Renou: Louis Renou, Grammaire Sanscrite, Paris, 1930.

Sen: Sukumar Sen, 'Syntax of Buddhist Sanskrit', Journal of the Department of Letters, University of Calcutta, 17 (1928).

SP: Saddharmapundarika, referred to by page and line of Kern and Nanjio's edition; that of Wogihara and Tsuchida (Tokyo, 1935-6) is occasionally referred to as WT.

Tib: Tibetan (translations of SP and LV).

v.l.: varia lectio.

WT: see under SP.

² Rather than with dissyllabic roots, as suggested by Renou 125. This suggestion is indefensible, because primarily the gerund is formed from the weak grade of all roots, so that even dissyllabic roots should and regularly do show no *i* (cf. e.g. *bhūtvā*, *īrtvā*). Whenever it occurs it is secondary, and in nearly every case the *itvā* forms were in my opinion based on the present stem rather than the root. The form in *i* is, says Whitney (956, cf. 991), 'used especially with roots having finals that are only with difficulty, if at all, combinable with *t*.' As a pragmatic statement of fact I think this statement still has value (of course with many qualifications), tho one would prefer to formulate it differently now. The only historically original and 'correct' gerunds in *itvā* are those from roots in *i*, like *jītvā*, and those, like *sthitvā*, in which the *i* is part of the weak grade of heavy bases, not of the suffix. These may, of course, have helped in the spread of the suffix *itvā*. The gerunds in *(ay)itvā* from *aya* presents are unhistorical in containing the *-ay-* of the present stem; see note 4.

but also occurs with not a few others. Most of the *itvā* forms were quite certainly based on the present stem. Thus *caritvā* is based on *carati*, just as *kārayitvā* is based on *kārayati*; it has practically displaced the original *cīrtvā*. In the forms from *aya* presents the *i* before *tvā* was doubtless due to the analogy of the past participles in *ta*, which in those verbs regularly show stems in *ita*; the participial *ta* and the gerund *tvā* are quite parallel in most Sanskrit roots. This parallelism extends to other cases which use the present stem as the 'root' for both formations: cf. *datta*, pple., and *dattvā*, gerund, to *dad*, weak-grade present stem of *dā* used as 'root'; and so also *carita*, like *caritvā*, from the present stem of *car*. The participles in *ita* from *aya* verbs are historic; the *i* represents the zero grade of *ay* (IE. **ei*, *ey*). The gerunds however are unhistoric and analogical to the participles, in that they show the syllable *-ay-* before the ending: (*kār-*)*ayitvā*. That is, such verbs in forming their gerunds treat the present stem as 'root', but adapt the ending to match the participle in *ita*. A gerund *kāritvā*, from *kārayati*, might be historical (just as the pple. *kārita* certainly is); but the classical gerund is *kārayitvā*, and tho *kāritvā* and the like are common in Buddhist Hybrid Sanskrit, they are surely not ancient inheritances but secondary neologisms (see footnote 4).—A slightly different and to my mind less plausible formulation of the origin of the gerunds in *ayitvā* would be to say that they represent original *itvā* forms modified by adoption of the *-ay-* that is characteristic of the present stem; that is, *kāritvā* changed to *kārayitvā* by thought of *kārayati*.

The suffixes *tvā* and *ya* in Hybrid Sanskrit

4. The suffixes *tvā* and *ya*, in their original forms (not preceded by *i*), occur almost exclusively in forms taken over directly from Sanskrit, and are almost always distinguished as in Sanskrit: that is, *tvā* is used with simple roots, *ya* with compound roots. As far as SP is concerned, one may say there are practically no exceptions. In that text I have found no compound gerund in *tvā*,^{2a} and no simple gerund in *ya* except *grhya*, which as we saw above is sometimes used even in standard Sanskrit; it occurs in verses SP 142.1, 305.14, and possibly in prose 277.2 (but here all Nepalese mss. read *udgrhya*, which is adopted by WT). In other Buddhist texts the distinction is less sharp, but nevertheless prevails on the whole. In LV we find, even in prose, *abhinīrmītvā* 83.22, *abhistutvā* 131.19, *tripradakṣiṇīkṛtvā* 253.21, *saṃghāṭīkṛtvā* 267.7

^{2a} At least in the text as printed; for *utsṛjya* 267.8 (prose) the fragment publ. by La Vallée Poussin, JRAS 1911, 1074, reads *parityaktvā*.

(so to be read with all mss.; Calc. °*kṛtya*, Lefmann °*kṛtyā*!), and possibly *avarjanāṅkṛtvā* 245.14 (Calc. °*kṛtya*, apparently without ms. authority; but the best ms. A °*varjanām kṛtvā* which may be the true text). And in verses, LV *āgatvā* 109.14, 288.6, *nihatvā* 156.6, 195.14, *etva* (short a m.c.) 197.2, *pragrḥtvā* 297.21, 338.12, *pratigrḥtvā* 387.7 (similar forms elsewhere, e.g. Mhv. i. 149.7 *pratiśrutvā*). And simple gerunds in *ya*, in LV verses: *grhya* very common, 110.20, 115.20, 133.19, 153.13, 168.16, 171.12, 219.16, 297.15, 311.2, and *grhyā* (m.c.) 169.3, 10, 258.8, 271.7; also *kampya* 110.22; *sthāpyā* 109.21 (and similar forms elsewhere, e.g. Lañk. 4.12 *vandya pūjya*). Note that *sthāpya*, as well as *grhya*, is mentioned by Renou as not uncommon in Sanskrit.

5. Otherwise the chief departure from Sanskrit usage is that the final *ā* of *tvā* may be shortened, and the final *a* of *ya* lengthened, for metrical reasons. This is true of all vowels in the dialect, and is particularly common with final vowels. Of *tva* for *tvā*, which is especially frequent, we find (besides compound forms, above): *kṛtvā* SP 84.9, 126.5, LV 37.21, 110.4; *gatvā* LV 94.8; *grḥtvā* LV 74.2, 192.2; *jītvā* LV 155.13; *jñātvā* SP 62.14, LV 240.11; *drṣtvā* SP 88.1, LV 95.5; *bhūtvā* LV 197.11; *śrutvā* SP 63.5, 125.11. We may include here also such forms as *caritvā* LV 276.1, *viditvā* SP 90.3, which, tho containing the 'union-vowel *i*', are inherited Sanskrit forms except for the metrical shortening of *ā*. Examples of lengthened *yā*, besides *grhyā* and *sthāpyā* above, are (all from LV) *anucintyā* 164.11, *avalambyā* 234.8, *upagamyā* 271.8, *oruhyā* (for *ava-r°*) 271.12, 14, *niśamyā* 79.15.

6. In one or two cases the suffix *ya* (like *iya* and *itvā*, see below) is applied to present stems, or at least to elements which in normal Sanskrit do not behave like 'roots'. So *viyahya* (to *vi-jahati*) LV 202.6, 242.17, and 211.7 (*viyahya-m-āntahpuri*, where *m* is Hiatusbridger); cf. *viyahitvā* §13, and *viyahya* §16. And, even more curiously, *vipaśya* (for Skt. *vidṛśya*) SP 282.6, to *vipaśyati*, or at least to the 'root' (*vi-*)*paś* which in standard Sanskrit does not function outside the present system; here it looks as if the *-y(a)-* of the present *paśy(a)-* and the gerund suffix *-ya* were telescoped. Cf. *paśyitvā*, §13. Again, LV 240.12 has a gerund *pratigrḥya*, from *prati-grah*; it may be regarded as a sort of blend between *grḥtvā* and *pratigrhya*. Since °*grḥtvā* (with the common metrical shortening of suffix *tvā*) would be metrically equivalent, its avoidance here may be taken as a confirmation of the fact that the language still keeps alive the Sanskrit distinction between *tvā* and *ya* (despite the free use of the Prakritic *itvā* with compound roots).

7. Finally, in two forms, *grahāya* and *niśrāya*, we find *ya* after a base

in *ā*. The former, *grahāya*, is also known in Epic Skt. (Harivaṃśa; see Boehtlingk, *pet. lex.*, s.v.); Renou 128, top, has an explanation which fails to convince me. Pali, AMg., and JM. have *gahāya*, obviously the same form; it seems clearly based on a Skt. **grahāyati*, probably some sort of denominative, which is represented by Pali *gahāyati* and Ap. *gahei* (Geiger §§212, 186.5 relates this verb to Vedic *grbhāyati*; cf. further Pischel §591 end). As to *nīśrāya*, it is clearly a Sanskritization of the Prakritic form seen in Pali *nissāya*, AMg. *nissāe*, and is probably also based on some sort of present connected with the root *śri*, tho its precise nature remains obscure. Both these gerunds are used practically as prepositions or postpositions: *grahāya* 'with' SP 211.6 (prose), Divyāvadāna (see Index), etc.; *nīśrāya* '(dwelling) in' SP 12.15. In both these appears a sort of telescoping of the gerund ending with the stem-final *ya*, as in *vipaśya*, §6. In AMg. other gerunds, besides *nissāe*, occur with the ending *āe*: see Pischel §593, who denies (with questionable judgment) that they have any connection with gerunds in *ya*.

The suffix *itvā*

8. In contrast with *tvā* and *ya*, which are used almost exclusively as in Sanskrit, the other gerund formations of our dialect are prevailingly Prakritic in character. This is notably true of the commonest of them, which is *itvā*. To be sure, as we saw above, this suffix appears in Sanskrit. But in our dialect its Prakritic character is signaled by its failure to show any tendency to limitation to simple roots, and by its regular affixation to thematic present stems instead of 'roots'. Even in Sanskrit, indeed, gerunds in *itvā* seem most commonly to be based on the present stem, rather than on the 'root'. But this is much more emphatically true of our dialect, which moreover seems, almost without exception, to use a thematic present as base for gerunds not only in *itvā*, but in all the other Prakritic gerund endings. In other words, the suffix (*itvā*, or one of the others to be considered later) is attached not to the 'root' but to the thematic present stem, minus the thematic vowel *a*. The thematic present is not always found (or has in some cases not yet been found) in Classical or even Buddhistic Sanskrit, but in such cases it usually is found in Pali and may be assumed to have belonged to the protocanonical Prakrit.

9. This same correlation between (often Prakritic) thematic presents and other verb-forms has also been noted in connection with the aorist forms in *i*, *ī*, *iṣu* etc. of our dialect (JAOS 57.19 ff.). It is likewise found with other verb forms. Thus, futures: *spr̥ṣiṣyasi* SP 294.10 (to

spṛṣati), *kṣipīṣyati* LV 145.14 (*kṣipati*), *vikirīṣyase* LV 335.7 (*vikirati*), *śrunīṣyati* LV 54.6, °*yanti* SP 236.4 (*śrunati*, BSkt. for *śṛṇoti*). Infinitives: *daditum* LV 288.3 (*dadati*), *pivitum* (for *pib°*) LV 309.15 (*pibati*). Past participles: *apṛcchito* SP 34.11 (*prcchati*), *manyitāni* SP 63.3 (*manyate*). In short, altho the protocanonical Prakrit still retained other types of present formation, it was tending towards a simplification and unification of the verb-system on the basis of a thematic present, which acted as 'root' for all the rest of the forms. The only verb forms for which there is no evidence of being drawn into the sphere of the thematic present are the perfects, which in our dialect are formed in the normal way, except for some slight confusion between strong and weak stem forms. But this is no real exception, for the perfect is dead in all Prakrits and in Pali, aside from some isolated forms and archaisms. We may safely assume that it was dead in the protocanonical Prakrit, and that when it occurs in BSkt. texts, it has been introduced in the Sanskritizing stage.³ Except a certain extension of the *s*-aorist with roots ending in long vowels (JAOS 57.28), we find practically no Prakritic verb-forms in our dialect outside the present other than such as are based on thematic present stems. The few exceptions are, generally speaking, based on other present types. Thus *upametum*, infinitive, SP 304.10, based on the present *upameti*, found in Pali. On the gerund *grhṇītvā*, perhaps based on the present stem *grhṇī-*, see below. They are so rare in comparison with the others that, when no thematic or other present is found on which a Prakritic verb-form could be based, we are generally justified in assuming a thematic present (cf. my remarks on *chinitvā*, under root *chid*, §13).

10. In the case of gerunds in *itvā* and *iya* (also *itvāna*, *iyāna*, and *i* or *ī*), the Prakritic character of these forms is strikingly indicated by the absence of any tendency to distinguish between simple and compound bases. The suffix *itvā* is used as freely with compound as with simple bases, and the suffix *iya* with simple as with compound bases. Consequently, when we find compound gerunds in *itvā*, even if Classical Sanskrit uses the corresponding form in *itvā* from the simple root, we should probably regard these compound *itvā* forms as directly based on the corresponding thematic presents, not inheritances of the (simple) Sanskrit gerund in *itvā* extended to compounds. For example, SP presents such forms as *vyāyāmitvā* 109.5, and *pravrajītvā* 465.3, both in prose. Now we saw above that SP, even in its verse parts (which are

³ But perfect forms are not so rare in SP and LV as Sen (54) says; his list of roots showing perfects is far from complete.

much more 'Prakritic' than the prose), never (unless I am in error) uses a compound gerund in *itvā*. Therefore—altho Sanskrit has uncompounded gerunds *yamitvā* and *vrajitvā*—I believe the forms *vyāyamitvā* and *pravrajitvā* have really no direct connection with them, but are Prakritic formations from the presents *vyāyamati* and *pravrajati*. And similarly *abhivanditvā*, LV 382.11, is to be directly and 'Prakritically' derived from *abhivandati*, altho there is a Skt. *vanditvā*.

11. Possibly the like may even be true of compound gerunds in *ayitvā* from *aya* presents, which are quite common in the verses of our texts; e.g. *praharṣayitvā* SP 25.11, *paripūrayitvā* SP 152.7, *vivarjayitvā* SP 129.4, *vyavalokayitvā* LV 93.16, *paricārayitvā* LV 190.16. And even in prose: *praṇāmayitvā* SP 100.5, *upanāmayitvā* SP 108.7, *prārthayitvā* SP 215.2, 3, *upadarṣayitvā* SP 267.6. Here, however, it is proper to recall that even in Sanskrit verbs with *aya* presents occasionally form compound gerunds in *ayitvā* (§§2, 3).⁴

⁴ In Sanskrit, gerunds from causatives and denominatives (and *aya* verbs generally) keep or insert the syllable *-ay-* before the gerund ending *itvā*, as was noted above, altho their participles show the historically expected form without *-ay-*; thus *kārita* pple., but *kārayitvā* gerund. In our dialect also this is the usual procedure; but we find not a few forms in *itvā* without *-ay-*. Thus, *cintitvā*, to be read SP 117.4 for *cintetvā* of both editions (all mss. quoted as *cintitvā*; meter requires short final); *janitvā* LV 234.7, and **tva* LV 50.14, 422.4, etc.; *choritvā* SP 251.5 (BSkt. *chorayati*); *tāritvā* SP 149.12; *pāṣitvā* SP 85.12; *pūjitvā* SP 217.9; *bhāvitvā* SP 92.8, 116.4; *harṣitvā* SP 25.7; compound bases, *prajñāpitvā* SP 194.3; *vivarjitvā* SP 99.4. It might be suggested that these preserve the historically original forms (§3). But this would be a false theory. They are purely secondary and Prakritic. This is proved by the fact that in our dialect other *aya* forms lose the syllable *-ay-*, not only futures (e.g. *vitṛṣiṣyase* LV 334.7), but even presents: *mocē* 'I set free' LV 219.4 (= *mocaye*, *mocayāmi*); *rocanti* 'they accept, approve' SP 306.4 (= *rocayanti*, Pali *rocenti*); *pratisaṃmodate* 'greet in return' LV 68.11ff., in prose (= *pratisaṃmodayate*, which is used just above in the same passage, LV 68.6; this instructively shows the exact equivalence of the two forms; cf. Pali *paṭisaṃmodeti*); *tāḍa* LV 341.13 = *tāḍan* = *tāḍayan*, etc. Conversely, also, our dialect has not a few forms in *aya* without any trace of causative meaning, precisely equivalent to forms without *-ay-*; e.g. *gacchayāmi* LV 223.1, m.c. for *gacchayāmi*, = *gacchāmi* 'I go'. In other words, the paling out of the distinctive force of the *aya* formations, which clearly starts in Sanskrit, has gone so far that in our language *aya* and non-*aya* forms are freely used interchangeably. Hence no specific significance can be attached to gerunds lacking this *-ay-*.—It is perhaps worth noting that, altho *e* for *ayi* (as well as *aya*) of Sanskrit is found repeatedly, I have noted only one gerund in *itvā* for *ayitvā* from an *aya* stem: *sthāpetv(ā)* in *sthāpetv-upāyaṃ* SP 91.8. And this is a kind of petrified form, practically a preposition, 'except', = Pali *thāpetvā*. In SP 117.4 the edition's *cintetvā* is an emendation, see above.

12. The following list will, I think, show conclusively that these gerunds are really based on thematic present stems, not on 'roots' I call attention to such forms as *ādaditvā*, *paśyitva*, *nirṁṇitvā*, *anuprā-puṇitvā*, *tiṣṭhitvā*; to *sthihitva*, -(s)*thahitvā* (from the Prakritic presents *sthihate*, -*sthaḥati*); cf. also the aorist *kurviṣu* (JAOS 57.20) from the Prakritic present *kurvati*, and many similar aorist forms. The occasional occurrence of such forms in Sanskrit, particularly Epic (cf. *khāditvā*, *siñcitvā* below), does not make it any the less an essentially Prakritic phenomenon; it only means that it starts, or perhaps rather is reflected, in certain spheres of what passes for Sanskrit.

13. The list does not include all occurrences of some of the commoner forms, but is intended to be complete as to roots. That is, I hope I have included all gerund forms in *itvā* which occur in SP and LV and not in normal Sanskrit (but also some which are found in early 'Sanskrit', say the Upaniṣads or the Epic; such cases are specifically noted); except that the numerous (ay)*itvā* forms from *aya* presents, §11, are not listed. The arrangement is in alphabetic order of 'roots' in their Sanskrit forms as commonly quoted. Included (but in square brackets) are Prakritic gerunds from thematic presents in other suffixes than *itvā*, to be treated below, in so far as these thematic presents would not otherwise occur in the list; thus we have here, I believe, a complete list of all 'roots' (present stems) showing Prakritic gerunds in SP or LV (except those based on *aya* presents, and the few which are not based on thematic presents at all, such as the type *kr̥tvāna* §14). Shortening of the final *ā* is very common, but exclusively metri causa; when the meter is indifferent, and in prose, long *ā* is always found. All the passages quoted are in verses except those specified as prose.

āp: *anuprāpuṇitvā* SP 291.13. Cf. BSkt. *prāpunati* (°*nati*) = Pali *pāpuṇati*, AMg. *pāuṇai*; read *anuprāpuneṇyāma* in SP 163.2 (see note in ed.).

kr̥ 'make': *karitvā* SP 229.8, LV 372.10; *karitva* SP 67.13, 98.9 (v.l. of O), 230.3, LV 133.20; *vyākaritvā* (so read with best mss.) LV 58.1. Cf. BSkt. (SP 228.14, LV 335.19) and Pali *karati*, Pkt. *karai*.

kr̥ 'scatter': *abhyavakiritvā* v.l. of O for ed. °*kīrya* SP 165.13 (prose). Cf. *kirati*. See also *abhyokiriyāṇa* §18, *abhyokiri* §19.

kram. *upasaṁkramitvā*, fragment of LaVallée Poussin, JRAS 1911, 1075, line 1, in v.l. for SP 268.1 (prose); *abhiniṣkramitvā* SP 68.8. Cf. *kramati*. (*kramitvā* also in Skt.)

kṣip: *kṣipitvā* SP 58.14; *kṣipitva* SP 55.7, 93.13, 14, 94.1, 95.4, 96.8, 8, 10, LV 50.3; *prakṣipitvā* SP 253.14, 254.2. Cf. *kṣipati*.

khād: *khāditvā* SP 84.5. Cf. *khādati*. (*khāditvā* also 'B.U.' in Whitney, Roots.)

gam: *āgamitva* LV 74.8. Cf. *āgamat*, thematic aorist of Skt., which later came to be felt as imperfect, giving rise to present **gamati*, found in AMg. *uggama-māṇa*, Pischel §480.

- grah*: (1) *grhñitvā* SP 113.3. Cf. Epic and BSkt. *grhñati*.—In LV 287.15, 288.7 is printed *grhñitvā* (with dental *n*); in the former passage some mss. are recorded as reading *grhītā*, the regular Skt. form, but no form with short *i* is recorded from any ms. Unfortunately Lefmann's statements cannot be trusted, and it is quite possible that he silently 'corrected' *grhñitvā* or *grhñitvā*⁵ to *itvā*. If the reading printed is correct, it would be either a blend of *grhñitvā* and *grhītā*, or else based directly on the weak ninth-class present stem *grhñi-*.
 [(2) *grahiya*, see §17. This is certainly based on a quasi-denominative **grahāyati*, represented by Pali *gahāyati*, Ap. *gahei*. See §7.]
- ci*: *niścayitvā* SP 48.6. Epic Skt. also has *cayitvā*. It is based on **cayati*, which I have not yet found in BSkt. but which is represented by Pali *-ceti* (opt. *niccheyya*) and Pkt. *cei* (Pischel §502).
- cyu*: *cyavitvā* LV 60.15 (prose), with v.l. *cyutvā*; LV 56.7, 215.13; spelled *cavitvā* in v.l. of O for SP 269.9 (prose). Cf. *cyavati*.
- chid*: *chinitvā* LV 195.12, 196.2. Cf. the aorist *chini* (JAOS 57. 19n.), which, with this form, seems to compel the assumption of a present **chinati*, which would seem to be a blend of *chinatti* with BSkt. and Pali *chindati*. No other source of *chini(tvā)* is conceivable to me, tho I have not yet found the present.
- ji*: (1) *parājayitvā* SP 159.1 (prose). Cf. *jayati*.
 [(2) *jinitvāna*, see §14; *jiniyā*, see §16. Cf. *jinati* of BSkt. (LV 285.10) and Pali (opt. *jine*, Geiger §131.1), *jinai* of Pkt. (Pischel §473).]
- jñā*: [*jāniya*, see §16; *vi jāniyāna*, see §18. Cf. *jānati*, BSkt. and 'U.E.' in Whitney, Roots.]
- tr*: *taritvā* LV 216.10; *uttaritvā* LV 270.19; *otaritvā* (= *avatīrya*) SP 114.5; *prataritvā* LV 197.7. Cf. *tarati*.
- tyaj*: *parityajitvā* SP 408.15. Cf. *tyajati*.
- dam*: [*damiyāna*, see §18. Cf. *damayati*.]
- dā*: *ādaditvā* SP 283.9 (spacing in ed. incorrect). Cf. *dadati* (very common in BSkt., but also 'V+' in Whitney, Roots).
- dhā*: *abhiśraddadhitvā* SP 80.5 (prose). Cf. *dadhati* (very common in BSkt., but also 'V+' in Whitney, Roots).
- dhyā*: *dhyāyitvā* LV 164.9; *dhyāyitva* LV 223.20. Cf. *dhyāyati*.
- nī*: *apanayitvā* SP 106.4 (prose); *ānayitvā* SP 108.7 (prose; so read with all mss. for *ānāyā*) and SP 115.4, LV 378.8; *samānayitvā* SP 115.5, 197.5; *samudānayitvā* SP 321.4 (prose), LV 386.22. Cf. *nayati*. The compound *samudānayati* 'procures, obtains' (Pali *samudāneti*) has acquired the status of an independent verb, the connection of which with *nī* is at times hardly felt any longer; cf. Senart, Mhv. i, p. 400. Note *samudāniya* or **yā* §16, *samudānayitvanā* §14, and the participle *samudānita* SP 178.13, LV 414.16 (but in prose *samudānita* SP 484.5, LV 8.16).
- pat*: *nipatitvā* LV 119.2. Cf. *patati*. Whitney, Roots, reports *patitvā* 'AV.B.'

⁵ According to Senart, Mhv. i p. xii, note 1, Nepalese mss. make no distinction between *hna* and *hṇa*. Probably, therefore, *grhṇa-* should be adopted (with Senart in the edition of Mhv.) always instead of *grhna-* which is often read in Lefmann's text. There are, however, other cases of *n*, even intervocalic, where Sanskrit phonology requires *ṇ*; cf. *kariyāna* §18.

paś: *paśyitva* SP 149.7. Cf. *paśyati*.

bandh: *bandhitvā* SP 273.10; *bandhitva* SP 23.11. Cf. BSkt. and Pali *bandhati*.

budh: *buddhitvā* LV 163.19, 164.12; *buddhitva* LV 231.19, 235.20, 355.15. Cf. aorists *anubuddhi* LV 299.12, *buddhiṣū* LV 220.12; participle *buddhita* Mhv.i.209.23, mss., emended by Senart m.c. (perhaps rightly) to *budhita*; possibly future *buddhiṣyate* (dental s), v.l. of two mss. for ed. *budhyiṣyate* SP 343.14; and—most important—*buddhema*, pres. opt., LV 361.10. In some of these occur variant readings with *budhy-* for *buddh-*, and at first I was inclined to consider the *buddh-* forms mere orthographic or phonetic variants, or corruptions, for *budhy-* forms (based on *budhyate*). It now seems to me that they occur too persistently to make this likely, and that we must assume the present *buddhati* as correct. It is doubtless a sort of denominative to the stem *buddha*. There are other cases where some mss. read *buddh-* instead of *budhy-* of the editions, and where the former reading may perhaps be the true one.

bhañj: *prabhañjayitvā* SP 159.1 (prose). Cf. *bhañjati* of BSkt. (LV. 175.17) and Pali. The *-ay-* is probably not significant; it is to be judged in the sense explained in my footnote 4.

bhāṣ: [*bhāṣiya*, see §16. Cf. *bhāṣati*.]

bhid: [*bhindiya*, read *bhinda*°, see §14. Cf. BSkt. (LV 306.5, prose) and Pali *bhindati*. The *-ay-* is not significant; it is to be judged in the sense explained in my footnote 4.]

bhuj 'bend': *abhujitvā* LV 259.5. Cf. *bhujati*.

bhuj 'enjoy': *bhujitva* LV 74.6. No present **bhujati* has been found from this root. The Pali present is *bhuñjati*: from it we should expect **bhuñjitvā* or **tva*. Since the meter here requires a short first syllable, it is likely that we must assume a merely metrical shortening of *bhuñj-* (which our mss. would write *bhumj-*) to *bhuj-*; the Prakritic 'law of morae' applies in our dialect (BSOS 8.516, infra), and would permit or even require such shortening here.

bhū: *bhavitvā* LV 79.19, 232.4; *bhavitva* SP 25.2; *ekibhavitvā* SP 31.10. Cf. *bhavati*.

mā, *mi*: *abhinirmīnitvā* (dental n) SP 63.6; *nirmīnitvā* LV 60.4. Cf. BSkt. and Pali *-minati* (*abhinirmīṇeyam* SP 196.7, 9; Pali *abhinimīṇeyyāma*, Geiger §146.3).

muc: *muñcitva* SP 292.6. Cf. *muñcati*.

mud: [*anumodi*, see §19. Cf. *modati*.]

ruh: *āruhitvā* SP 128.12; *āruhitva* LV 73.18; *upāruhitvā* SP 283.11; *oruhitvā* (= *avar*°) LV 241.11. Cf. *ruhati*.

lajj: [*lajji*, see §19. Cf. *lajjate*, °ti.]

labh: *labhitvā* LV 38.2; *labhitva* SP 99.2, 152.6. Cf. *labhati*.

lamb: *adhyāmbitva* SP 253.5. Cf. BSkt. *adhyāmbate* 'seizes' (SP 104.3, LV 77.2).

viś: *praviṣitvā* SP 236.7, 272.8; *praviṣitva* SP 193.9. Cf. *viśati*.

vṛ 'cover': *prāvaritvā* SP 114.5, 236.7, 283.8; *vivaritvā* SP 176.11. Cf. BSkt. *prāvarati* (SP 11.12) 'puts on (clothes)'; Pali *vivarati*.

vṛṣ: *varṣitva* LV 117.11. Cf. *varṣati*.

śikṣ: [*anuśikṣi*, see §19. Cf. *śikṣati*.]

śṛ: [*avaśiriya*, see §16. Cf. BSkt. *avaśirati* 'clears away'.]

śri: *nīśrayitvā*, v.l. of Nepalese mss. for ed. *niṣevitvā* SP 335.11. Cf. *śrayati*. See also *nīśrāya*, §7.

śru: *śruṇitvā* SP 294.7, 385.5, LV 230.7, 232.13; *śruṇitva* SP 63.8, 110.12, 114.1, 117.2, 212.5, 287.9, 291.12 etc., LV 199.20 etc. In the mss. of LV these forms are

sometimes written *śu*°, as indeed meter shows they were always pronounced (BSOS 8.507, KSCV 43); so at 57.15 in most mss. and at 57.5 in some (Lefmann *śu*° both times, and — curiously — also at 117.1, 241.5, where he states that all mss. read *śru*°!). Cf. BSkt. *śruṇati*, Pali *suṇati* (Geiger §147.4).

sad: *niṣīditvā* SP 236.8, 336.10, 12. Cf. *sīdati*.

sic: *siñcitvā* (also in Skt., but regularly *siktā*) SP 147.6. Cf. *siñcati*.

sev: *niṣevitvā*, see under *śri* above. Cf. *sevati*. Epic Skt. also *sevitvā*.

stu: *stavitvā* LV 225.4, 355.13; *stavitva* SP 455.8, LV 54.15, 117.12, 361.7; *abhiṣṭavitvā* SP 191.8; *saṃstavitvā* SP 25.7. Cf. BSkt. *stavati* (SP 12.6), Pali *thavati*.

str: *saṃstaritvā* LV 133.19. Cf. *starati*.

sthā: (1) *tiṣṭhitvā* SP 253.9. Cf. *tiṣṭhati*.

(2) *sthihitva* SP 222.2, 330.9, LV 93.1, 199.3, 414.3; *adhiṣṭhihitvā* SP 384.3; *utthihitvā* LV 314.13; *pratiṣṭhihitvā* LV 134.9, SP 63.10. Cf. BSkt. *sthihate* LV 29.1, 136.7, etc. (blend of *sthaḥati* and *tiṣṭhati*).

(3) *vyutthahitvā* SP 295.7. Cf. BSkt. *-sthaḥati* (SP 323.13, 129.5), Pali *ṭhahati* (Geiger §§64.2, 132.4).

sprś: *sprśitvā* LV 301.2, *asprś*° LV 368.10; *sprśitva* SP 47.3, 222.4, 294.8, 14, LV 210.20. Cf. *sprśati*.

sphar, *sphur*: (1) *spharitva* LV 116.15 (°*tvā* also Skt.). Cf. BSkt. *spharati* (not in Whitney, Roots; LV 250.20, prose), Pali *pharati*.

(2) *sphuritva* LV 294.4. Cf. *sphurati*, Class. and BSkt. (SP 264.1 etc.).

smr: *smaritvā* SP 115.11; *smaritva* SP 287.7; *anusmaritvā* LV 234.9. Cf. *smarati*.

svap: [*supiya*, see §17. Based on BSkt. *supeti* (Mhv. ii. 423.7, 433.12), for **supa-yati*, caus. of **supati* = Pali *supati*, Pkt. *suwai* (Skt. *svapati*): 'having caused ... to sleep'. Misunderstood by Lefmann on LV 50.4; Calc. has a false reading.]

han: *nihanitvā* LV 287.4; *parāhanitvā* LV 12.19. Cf. BSkt. *hanati* (*ahanat* 'B+' Whitney, Roots).

hā: *jāhitvā* SP 13.1, LV 195.16, 230.21; *jāhitva* SP 23.8, 59.6, 68.8, 154.5, 295.4, LV 235.15; *prajāhitva* SP 166.8, 295.3; *vijāhitvā* LV 57.19, 184.7. Cf. *jahati* (BSkt., also Classical).

hr: *saṃudāharitva* LV 241.13. Cf. *harati*.

The suffix (*i*)*tvāna* (°*tvānā*, °*tvana*)

14. In precisely the form *tvāna*, this suffix exists only in Pali (Geiger §208); and the (m.c.) variants *tvānā*, *tvana* seem to be recorded nowhere else. With it may be compared, however, the suffix *tvānam*, quoted by Sanskrit grammarians as Vedic (Whitney 993c) but not recorded in the literature; and AMg. *tlāṇam* (no **tlāṇa* recorded), also (*t*)*uāṇa*(*m*), in this case showing forms with and without final anusvāra; further, general Pkt. and Pali (*t*)*ūna*(*m*), with and without anusvāra, and with the usual phonetic variations in the dialects. In SP and LV no form of this ending, or of these endings, showing a final nasal has been discovered. When the meter requires a long final syllable, the final *a* is lengthened instead. The penultimate *ā* may also be shortened for metrical reasons, so that the suffix appears as *tvāna*, *tvānā*, or *tvana* (no **tvānā* has been noted, but this is doubtless an accident). By what

is probably also only an accident, the *tvānā* and *tvana* forms occur only in LV, never in SP, and the *tvāna* forms only in SP except *dr̥ṣṭvāna* LV 302.21. That the suffix is to be analyzed as an extension in *-na* of the regular *tvā* of Sanskrit is obvious, and is confirmed by the fact that in some cases regular Sanskrit gerunds in *tvā* (not *itvā*) are thus extended, namely: *kṛtvāna* SP 52.3, 145.8, 11, 314.3, and m.c. *kṛtvānā* LV 221.17, 271.1, *kṛtvana* LV 395.9; *gr̥h̥tvānā* LV 75.1 and *°tvana* LV 114.18; *jñātvāna* SP 93.7, 198.10 (both times wrongly divided in ed.; translate 93.7 'I have spoken it [only] after knowing the *abhijñās*'); *dr̥ṣṭvāna* SP 207.10, LV 302.21; *śr̥utvāna* SP 53.3, 58.2, 192.4, 208.2, 394.5; *sth̥itvāna* LV 287.16; *sn̥ātvāna* LV 271.15. Somewhat more numerous are the Prakritic gerunds in *itvāna* (*itvānā*, *itvana*), based on thematic present stems like those in *itvā*, above: *ekībhavitvāna* SP 31.13, 32.3, 8; *abhi-dhārayitvānā* LV 237.2; *karitvāna* SP 56.1 (so read with O), 93.14, 158.4, 254.4, and *°tvana* LV 414.9; *cyavitvāna* SP 95.1, 384.6; *jahitvānā* LV 325.8; *jinitvāna* LV 364.9; *daditvāna* SP 334.10; *bhavitvāna* SP 198.8; *bh̥indiyitvānā* (read *bhinday°* with v.l.) LV 73.21; *lobhayitvāna* LV 313.8; *śr̥ṇitvānā* LV 235.21; *saṁstavitvāna* SP 229.13; *saṁtarpayitvāna* SP 212.11; *samaḥkaritvānā* LV 236.6; *samudānayatvānā* LV 178.15. It will be noted that the forms of this latter class (but not those of the first subdivision) are made freely from compound as well as simple bases.

The suffix *iya*

15. This suffix is obviously only a Prakritic form of *ya*; it appears also in Pali as *iya* (Geiger §213) and in Prakrit as *ia*, *iya* (Pischel §§590f.). Like the other Prakritic gerund suffixes, it is attached as freely to simple bases as to compounds (indeed even oftener), whereas *ya*, as we saw, is nearly limited to compounds as in Sanskrit; and it always uses a thematic present stem (minus the *a*) as base, which rarely happens in the case of *ya* (for rare exceptions see §6). As with *ya*, the final *a* may be lengthened, usually where the meter requires a long, but in this case also once or twice in metrically indifferent positions; thus at the end of pādas in SP, viz. *viḥāniyā* SP 59.5 and probably 125.8 (where the ed. has *viḥāniya*, but O and one Nepalese ms. *°yā*). According to Pischel §590 Prakritic *i(y)ā* occurs only 'in verses', that is presumably m.c.; altho AMg. (ib. §587) has a gerund suffix *ccā* (Skt. **tyā*) with regular *ā*, doubtless, as Pischel suggests, influenced by the vocalism of AMg. *tā* (Skt. *tvā*). It is possible that the *ā* of *iyā* is similarly due to the influence of *itvā*; cf. *iyāna* (§18), obviously based on *iya* (or *iyā*) as is *itvāna* on *itvā*. I agree with Pischel in doubting any connection of such forms with the Vedic gerunds in *yā*.

16. The list will be arranged under Sanskrit 'roots' as in §13, where have already been quoted all the thematic presents which underlie these gerunds. The *iya* forms seem to be specially common with *aya* verbs (causative and denominative); these will be listed separately in §17.

kṛ: *kariya* LV 243.12.

ji: *jiniyā* LV 326.17.

jñā: *jāniya* SP 45.3, 46.8, 53.15, 292.10, 326.11; *vi jāniyā* (§15).

dā: *dadiya* LV 241.7.

nā: *samudāniya* SP 145.11 (read °yā m.c.), LV 394.17; °yā LV 421.21.

bhāṣ: *bhāṣiya* SP 23.11, 25.11, 193.9.

bhuj 'bend': *ābhujīya* LV 133.20.

bhū: *bhaviya* LV 297.9; °yā LV 298.9; *anubhaviyā* LV 329.3.

śr: *avaśīriyā* LV 240.15.

stu: *staviya* LV 329.19.

sthā: *sthihiya* LV 240.17.

han: *parāhaniya* LV 343.1.

hā: *vi jāhiya* LV 232.22.

hṛ: *vi hāriya* LV 243.11.

17. From *aya* verbs; the syllable *-ay-* is always dropped:

prāpiya SP 392.4 (to *prāpayati*).

grahiya (see §13) LV 297.3, 299.9, 337.8, 342.6.

vicintiya SP 147.9.

janiyā LV 168.8, 329.14; *saṃjaniya* LV 223.2.

tāriyā LV 178.12.

darśiya LV 235.13 (ed. divides wrongly).

bhartsiya SP 114.9 (so read).

māpiya SP 111.6.

vivarjiyā LV 179.6.

saṃvarṇiya SP 25.7.

vartiya SP 310.10.

vādāpiya SP 52.4.

supiya (see §13, root *svap*) LV 50.4.

The suffix *iyāna*

18. As in AMg. (Pischel §592) and Pali (Geiger §214), this Prakritic gerund suffix occurs, tho not very commonly, in our dialect. Pischel explains it, certainly correctly, as a case of proportional analogy; (*i*)*tvā*: (*i*)*tvāna* = (*i*)*ya*, metrically (and otherwise? §15) *iyā*: *iyāna*. It occurs in SP and LV only in the form *iyāna* from thematic present stems. The roots are all listed, and the thematic presents quoted, in §13.

kariyāna SP 222.1, 369.4; *ādikariyāna* SP 192.1; *kariyāna* (with dental *n*, contrary to Sanskrit phonology) SP 128.7, LV 134.13.

abhyokiriyāna SP 191.2, 7.

gamiyāna SP 157.13.
vijāniyāna SP 116.1.
damiyāna SP 118.4.
labhiyāna SP 118.7.
prāvariyaṇa SP 272.3.
pravrajīyāna LV 240.9.
śruṇiyāna SP 61.9, 129.5, 330.1.
niṣīdiyāna SP 283.12 (so read with WT).

The suffix *i*, *ī*

19. This suffix has been recorded only in Ap.; see Hemacandra 4.439, Pischel §594, Jacobi, Bhavisattakahā §39, Sanatkumāracarita §27, Alsdorf, Kumārapālāpratibodha §39. Jacobi does not recognize it as actually occurring in San. but notes five cases in Bhav., and there is at least one case in San., *suṇi* 445.5 ('having heard that the sun, the friend of the world, had gone to rest'); and Alsdorf quotes three forms—*kari*, *gacchi*, *suṇi*—from the Kum. The forms of SP and LV are, as we should expect, always based on thematic present stems. The extraordinary ambiguity of the ending *i*(*ī*) makes it often difficult to be sure of the gerundial nature of the forms. Sometimes they may be interpreted as aorists, as optatives, or even as noun forms (nom. or acc. sg. or pl. of *i*, *ī*, or *in* stems). Nevertheless in some cases it seems scarcely possible to take them otherwise than as gerunds. I have assembled here some of the most convincing cases, avoiding most of those which could easily be explained otherwise. My list is therefore probably far from complete, since there are not a few others where the interpretation as gerund would be as plausible as any other, tho possibly not more so.—I derive the ending from *ya* quite simply by samprasāraṇa, cf. Pischel §151. Otherwise Pischel §594, and yet more implausibly Gray, BSOS 8.575. The forms occur only in verses, and in most cases meter determines the quantity of the final vowel. There are very few occurrences in metrically indifferent positions (e.g. at the end of pādas in SP, see JAOS 57.17 n.), and the ambiguity of the form makes it unsafe to argue from them as to the original quantity, since there are few cases where it would be absolutely impossible to assume some other verb or noun form.

abhyokiri SP 325.4, 228.15 (in the latter passage the form might be taken as optative).

kārāpayi SP 152.5: 'and after causing stūpas to be made for them when they have entered nirvāṇa, he will honor them' etc.

upasaṃkramī SP 11.11, 191.1. In the latter passage, the word occurs in a clause that is bracketed between two precisely parallel clauses, both of which contain gerunds (*viditva*, and *abhyokiriyāṇa*; for the latter, to be sure, O reads *abhyokiri*, but this would also best be taken as a gerund).

puṇyaṃ tato bahularu tasya hi syāt, paraṃparātaḥ śruṇi ekagāthām, anumodī vā ...

SP 351.11-12: 'greater than that would be the merit of him, having heard a single gāthā from line of succession (of teachers), or having joyfully received it ...' The forms in *i* would have no subject if taken as finite verbs; and in the next stanza *śrutvā* is used in a closely parallel phrase.

varṣi LV 294.5. Seems clearly parallel to *sphuritva* in line 4: 'having spread abroad (or, 'filled'; *sphurati* has this meaning in BSkt.) the cloud of the law ... and having rained the good law ... he will cut off ...' This appears to be confirmed by Tib., which has *char-pa ḥbebs*, exactly parallel to *khyab = sphuritva* in the preceding line; Foucaux renders by a future, but the future of *ḥbebs-pa* is *dbab* according to Jäschke, and it seems that both *khyab* and *ḥbebs* must be understood as gerunds, lacking the 'ending' as often in gāthās.

na uttarī prārthayi nāpi cintayī SP 213.10, perhaps: '(for we were satisfied with mere nirvāṇa, or a small part of nirvāṇa,) not asking for, nor even thinking of, anything further.' But these forms might be taken as aorists (3 sg. with 1 pl. subject), and apparently Tib. so understands them (*sems so = cintayī*).

lajji hirotrapatta (ablative) *muninaḥ prapatiṣu carāṇe* (read so) LV 329.13: 'Being ashamed, thru modesty and shame they fell at the muni's feet.' Confirmed in Tib.

tyaji LV 362.7.

vayam api anuśikṣi tasyā mune vīrya sthāmodgataṃ (so divide), *kṣipra bhavema ... lokottamā* LV 422.5: 'we also, having learned from (Tib. *-las*, abl.) that muni heroic energy that is elevated by power (Tib. *mtshus*, instr.), may we become' etc. Foucaux hopelessly misunderstands both Skt. and Tib.

saṃśrāvayi SP 384.1 (parallel with pres. pple. *sahantu*, 'having spoken ... enduring ...'); Tib. renders by gerund in *na*. Interpretation as aorist would be less plausible.

dhyāyī LV 116.10.

upanayi LV 166.10; might be 2 sg. aor., but better as gerund; Tib. *khrid de*, gerund.

smari LV 167.2, as prec.; Tib. *bsams te*, gerund.

codayi LV 169.22; better as gerund than as 3 sg. aor. with pl. subject; in the same line *raviṣu* has 3 pl. form, and *codayi* is rather dependent upon it than parallel with it.

magadhapuri praveśi lokanātho LV 243.11; followed by parallel phrases containing gerunds, *vihariya*, and *arthu kariya*; then *upagami*, the aorist main verb: 'the Lord of the World, having entered ... , having dwelt there, ... having done the welfare of ... , went to ...' Tib. *žugs te*, gerund, 'having entered'. Tho based on the causative form *praveśayati* (Pali *paveseti*), it has the meaning of the simple verb, as not infrequently in our dialect; metrical requirements may be concerned.

The suffix *tā* (?)

20. In AMg., and also in JS. and JM. (Pischel §582), we frequently find the phonetic representative of *tvā* as *ttā*, which after nasals appears as *tā* (e.g. *gantā*). Pali has no such forms, and if they occurred in our dialect they are certainly very rare. Presumably if they existed in protocanonical Prakrit (as is not unlikely in view of its proved close

relationship to AMg.), they will have been almost entirely Sanskritized to *tvā* in our texts. In one single passage I think it likely that we have such a form. This is LV 356.6, a stanza: *pūjām kṛtā vrajata kṣetra svaka-svakāni*, 'having performed homage, go (each) to your own several fields.' Here the meter requires a short first syllable in *kṛtā*, so that *kṛtvā* (for Prakrit **kittā*, or the like?) would be metrically impossible. Reduction of a double to a single consonant for the sake of the meter is, to be sure, not common in our texts, but I have found some cases. One of the clearest is LV 362.13, where meter compels us to accept the reading *dinadaśi*, with several mss. including the best (A), instead of *dinadarśi* of the edition; it is clearly a reduction m.c. of a Prakritic *dinadaśśi* or *dinadassi*, equivalent to Skt. *dinadarśi(n)* 'showing light'. If the protocanonical Prakrit had (after bases in nasals) such forms as *gantā* of AMg., with single *t*, these may have made easier the reduction of *tt* to *t* in the form represented in our text by *kṛtā*. This is the reading of all mss. except one poor one, which has the unmetrical *kṛtvā*. Calc. also has *kṛtā*, but reads *pūjā* instead of *pūjām* before it ('homage has been performed: go ye' etc.); but according to Lefmann all mss. have *pūjām*; probably the editor of Calc. merely emended a text which he did not understand. Our interpretation seems confirmed by Tib., which has an instrumental gerund in *kyis: mchod-pa byas-kyis ran-ran-dag-gi žin-du dañ*, 'since you have performed homage (lit. 'by reason of homage performed'), depart to the field of each one (pl.).'—On LV 74.3, where Calc. reads *bhukta* and wrongly interprets it as a gerund, see the next paragraph.

The falsely alleged suffix *tu*

21. In SP 330.10 both editions read *etādrśam labdhu phalam anās-ravam*, and Kern-Nanjio interpret *labdhu* as a gerund, for *labdhvā*. The form as such (with *u* for *vā* by *saṃprasāraṇa*, cf. *i* for *ya*, §19) would be phonetically possible. But, in the first place, the true reading is surely *labdha*, with all mss. but one. And in the second place, whether *labdhu* or *labdha*, it is certainly to be taken as a participle, for *labdham*: 'such fruit (result) has been obtained'.—Similarly in LV 74.3 *bhuktu* (for which Calc. reads *bhukta* and interprets it as a gerund, cf. §20, end) is an acc. sg. masc. participle, for *bhuktaṃ*; and if the Calc. reading *bhukta* were adopted it should be interpreted in the same way. No gerund in *tu* has been found in our texts.

BREAKING IN OLD NORSE AND OLD ENGLISH

WITH SPECIAL REFERENCE TO THE RELATIONS BETWEEN THEM

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Under breaking I include here the change of a front vowel in a stressed syllable to a diphthong by the influence of following velar elements whether these be consonants in the same syllable or vowels in the next. We have to do then with OE consonantal breaking and with ON breaking, and also with that phase of velarization of front vowels in OE which, since the eighties of the last century, has come to be called *u-o/a-umlaut*. The last is, of course, a velar-vowel breaking.¹ My thesis is that these three phenomena are not only similar in nature but directly related in origin.²

In ON the phenomena are somewhat more clear-cut than in OE, in that it is only the short front vowel *e* that is affected. In OE any front vowel may be affected, and not only a short front vowel but, within very definite limits,³ even the long front vowels.

It may be well too to observe at this point that OE breaking of the type: *beorg*, *healdan*, is held to be a purely consonantal influence, and that it took place very early, whereas such forms as *heorot*, and *liomu*, are of much later date, and were due to the vowels of the endings. There is in ON no such division of things, with centuries of intervening inactivity of the velarizing process. In ON also breaking is, to be sure, divided into two periods but on a different basis: in the first period breaking is bound up with syncope, whereas in the second period break-

¹ Both phases in OE were called 'Brechung' by J. Grimm and H. Paul. W. Scherer (1868) and A. Holtzmann (1870) used the name 'Umlaut' for all the phenomena in OE and ON. In the Scandinavian North the word 'Brydning', Sw. 'Brytning', was established from the beginning (see also Wimmer, 1874).

² In my discussion I shall ordinarily use the name *u-o/a-umlaut* for the second phase of the OE phenomena. However, I shall sometimes employ the terms 'consonantal breaking' and 'velar-vowel breaking'.

³ These limits will be indicated below.

ing took place also before the velar vowels that remained. Here then breaking in *hiarta* is a later thing than that in *iord*.⁴

There are considerable differences in practice between the various sections of the two areas, as we find that practice recorded in the documents. There are differences between East Scandinavian and West Scandinavian; there are still greater differences between Old West Saxon and Old Anglian; in general Old Kentish is not very different from Old Anglian. In some measure these differences may be due to the fact that fracture was not equally active everywhere; but probably the differences are due in a much larger measure to levellings in favor of one or another vowel in the most extensively cultivated and most highly standardized dialects in each area, namely Old West Saxon and Old Icelandic.

Some examples of this will be in order. In WS the noun *scip* has the stem-vowel *i* throughout the paradigm. This cannot be the original condition, for in WS *u-o/a*-umlaut appears by preference if a liquid or a labial intervene. In ONhbr., however, we come nearer to the original, as its nom.-acc.-pl. *sciopo* shows. Hence the earlier forms must have been: Sg., *scip scipes scipe scip*; Pl., *sciopu sciopa sciopum sciopu*.⁵ Many other examples could be listed. Of very special interest are the vbs. of the 4th and the 5th ablaut-rows. In WS these vbs. regularly have *e* as the stem-vowel: *beran, teran, stelan, breacan, drepan, sprecan, swefan*, etc. But in Anglian the forms are: *beoran, teoran, steolan, eotan, breocan, dreopan, spreocan*,⁶ etc. Hence the present indicative forms of the vb. *eotan* were: *ic eotu, þu ites, he iteþ, we eotaþ* (or *eataþ*).

Similarly there are no broken forms in these vbs. in Old Icelandic. Examples: *bera, skera, fela*,⁷ *stela, gefa, geta, eta*, etc. Shall we say with

⁴ The earliest written form of the OSc. fracture-diphthongs were *ea* and *eo*. Scandinavian and other editors of ON texts at first printed *ja* and *jø*, as in later Icelandic. Wimmer used *ja* and *jø*; similarly A. Noreen in the first three editions of his grammar, but he changed to *ia* and *io* in the 4th edition.

⁵ The pl. could be *sciapu*, since in Old Northumbrian *ia* for *io* is quite characteristic, likewise *ea* for *eo*.

⁶ These are the Old Mercian infinitives; in ONhbr. they are, of course, *beora* (*beara*), etc.

⁷ *Fela* belongs in class IV in ON, as in OSc. in general; originally: *felhan* (OWS: *fēolan fealh fulgon* (and *fælon*) *folgen*). With OSc. *fela fal fálo folgenn* cf. ONhbr. *fela falh fēlon folen*.

PrSc. *felhan* should have given *fealha*, just as *berga* gave *bearga*. A. Kock 1911, says about this vb: 'Inf. isl. *fela* (<**felhan*; vgl. got. *filhan*, ahd. *befelhan*, "be-graben") ohne Brechung, zeigt, dass zum mindesten in einigen Gegenden das *h* in *felhan* verloren ging ehe die Verkürzung von *-a* in *helpā* > **helpa* (*hialpa*)

Axel Kock that breaking could not operate in the infinitive of short stems because in the fracturing age the vowel of the ending here was long (after the lost *n* of the infinitive)? It may be so. But since fracture does appear in these verbs in so many regions of the North, the absence of it in Icelandic and standard Old Norwegian may perhaps be after all a case of levelling. For in the rest of Old Norse, that is in dialect forms of Old Norwegian, and in Faroese, and in the Shetlandic 'Norn' dialect, the vbs. *fela* and *stela* become *fjala* and *stjala* (*fjal* in Shetland⁸). Again, Old Swedish and Old Danish show such broken vowel forms in the vbs. of the 4th and the 5th rows very frequently,⁹ and both standard Swedish and standard Danish have them today. Finally Old Gutnic (Old Gothlandic) has regularly the forms: *biera*, *ieta*, *stieta*, *iefa*, etc. (from *biara*, *giata*, *stiaia*, *giafa*).¹⁰ Other differences also disappear, when instead of taking WS as our point of departure, we take OE as a whole, and especially Old Mercian, Old Northumbrian, and Old Kentish. And on the Scandinavian side OIc. alone does not give us a complete picture of the actual situation.

From what has been said it is apparent that ON breaking of short stems is in all essentials the same as OE vocalic breaking, that is *u-o/a*-umlaut. But ON breaking operates also in words with long stem; and therefore includes that which belongs with consonantal breaking in OE. I shall now turn to this.

OE breaking of this earlier phase has to do with those groups of cases where the vowel that was fractured was followed immediately by *r* + a consonant, by *l* + a consonant, by *h* + a consonant, or by single *h*. This phase antedated *i*-umlaut which was completed in England in the 6th century. On the other hand vocalic breaking, the so-called *u-o/a*-umlaut, did not begin until the 7th century; that is, at the same time that breaking in all kinds of words is now held to have begun in

usw. eintrat.' In many parts of the North the vg. is *fjæla* (<*fjala*), both early and in present dialects, which could be from PrSc. *fealha.*, or from late *feala*.

It may be added here in reference to the writing of the two diphthongs in ON that the original form *ea* and *eo* (later *ia*, *ip*) continues in more or less general use down to ca. 1200; frequent occurrences are seen in late MSS. For example, there are 152 instances of *ea* for *ia*, and 3 of *eo* for *io* in Ms Gl. k. S. 1154 Quarto of the General Law of the Gulathing, the date of which is ca. 1340 (from pages 27-8 of a study of the script and the language of this codex, now in press).

⁸ Jakobsen, 1897. 165.

⁹ As OSw. *biæra*, *fiala* (*fjæla*), *skiæra*, *stiaia* (*skiæra*), *miæta*, *giæta*, *giæva*, etc.; OD *fiala* (*fjæla*), *stiaia* (*stiæla*), etc.

¹⁰ Söderberg, 1879.

the Scandinavian North. OE consonantal breaking was in its first phase, I would judge, in the 4th century.¹¹ The steps that must have preceded the beginning of breaking would belong especially to the 3rd century; by ca. 500 breaking by consonantal influence was a completed act in England.

Between the completion of OE breaking before consonants, then, and the later *u-o/a*-umlaut there lies a period of two centuries or so. And there is the same lapse of time between OE consonantal breaking and ON breaking. And if we reckon the time from the beginnings of breaking there will be a period of ca. 400 years between the early phase and the two later phases.

However, these considerable intervals between the time when breaking first operated in English-Frisian and the date when it was first recorded in South Scandinavian, and its later phase among the Anglo-Saxons, need not surprise us; it is surely no proof that the three phenomena are not related. For did not *i*-umlaut have its first beginnings among the continental Angles, Jutes, and Frisians in the two centuries before the Anglo-Saxons left their continental home? And did not *i*-umlaut reach the Scandinavians from the Angles, Jutes, and Frisians, their neighbors to the south? Yet *i*-umlaut is not evidenced in the Scandinavian North before the 7th century (its first phase being roughly dated 600-700) hence ca. 300 years later than in Anglo-Frisian. And again, *i*-umlaut is apparently just beginning to operate in OHG about the year 800. Apparently *i*-umlaut travelled slowly. And breaking must have been a still slower process, and must have taken a longer time to reach its culmination.

Consonantal breaking of a front vowel into a diphthong with a velar second element is of course caused by the velar articulation of the consonants that cause the vowel-change. These consonants may have been velar in quality by their own nature, or else they may themselves have become velarized by their environment. For the OE breaking in this narrower sense, and for the corresponding part of the fracture-material in ON (OSc.) we have in *h*, and *h* + consonant, a consonantal influence which was perhaps guttural of old. But the *r*- and *l*-groups must have acquired velar quality by the influence of vowels or consonants immediately preceding or immediately following. Breaking before *h* + consonant is of somewhat wider scope in OE than other breakings, since even long vowels may suffer breaking in this case (Gmc. *nāh*, PROE. *nāh* to *nēah*); and breaking also operates even before a single *h* (*feoh*).

¹¹ Luick, HGESpr. 266, dates OE breaking as of the 3rd-4th centuries.

Breaking before *h*-groups has the special interest that it is the one phase of breaking that is exhibited in Old Frisian also (*riuht*, *sliuht*, *siuht*, etc.). However, there are so many limits to this phase of breaking (less activity in parts of the areas, early recessions, early loss of *h*, assimilation of *ht* to *tt* in ON, fewness of instances with stem *e* before *h* + consonant both in OE and in ON), that for our purpose we may leave it with this mention. (In between the two groups [the fracturing *h*-groups, and the fracturing liquid-groups] come the combinations *lh* and *rh*, in which the *h* would presumably have velarized the liquid at an early time.) We are, of course, especially concerned with the second group: such instances as OE *beorc*, ON *beork*; OWS *heorte*, ONhbr. *hearta*, ON *hearta*; OAnglian and OKentish *seolf*, ON *sealfr*, etc.

The theory that in ON all these fracture-forms are due entirely to the influence of the velar vowel in the following syllable cannot be wholly correct. For, as already indicated, this earliest phase of breaking in ON is almost wholly limited to forms in which the *e* is immediately followed by *r* + consonant or by *l* + consonant, and in the next syllable by *a* or *u*. Rather I would say: that the original fracturing force was the liquid consonantal group; that at first the second part of the new fracture-vowel was a velar glide; that at a later time the *a* of the ending umlauted the fracture-vowel into a full short diphthong whose second element was *a*; and that the *u* of an ending had the same influence, resulting in the full short diphthong *eo*.

OSc. *r* had a two-fold quality. It was: (1) an alveolar *r*, about as in Norwegian *ring* today. It had this quality initially, initially after a consonant, and when double. (2) It was a somewhat retracted *r*, as in English *far*, or in Norwegian *gjorde*. The *l* had a similar two-fold quality. It was a front or dental *l* initially, when double, and in original dental environment (as *lesa*, *kalla*, *halda*, *holt*). Elsewhere *l* had retracted or cacuminal quality, i.e. between vowels, immediately after or before velar vowels, or after or before velar or labial consonants. In general, then, dental *r* and *l* initially and in gemination, cacuminal quality elsewhere. Examples: *folk*, *hialm*, *fjöl*, *biörgs*, *fiord*. In the modern dialects of Norway and Sweden there are local variations, e.g. initially after *g*, *k*, *b*, *p*, *f* an *l* is quite generally 'thick'.

There were these two kinds of *l* and *r* in all Old Scandinavian. In initial position, in gemination, etc., the dental *r* later became a trilled *r* everywhere, and in West Norwegian and in Icelandic the trilled *r* entered into all positions of the word. In Eastern Norway and in the larger part of Sweden on the other hand the retracted *r* and *l* displaced dental *r*, *l* sometimes in the old combination *rð*, the *ð* disappeared and

the *r* became for the most part a deep throaty *l*, called 'thick *l*' (*fjörðinn* > *fjoín*).¹² This has also happened to old *rd* in many places (*lordag* > *lōla*; Noreen, on Dalmålet).¹³ But for *r + d*, *r + t*, *r + n*, *r + l*, *r + s*, an assimilation took place in such a way that the *d*, *t*, etc., came to be pronounced with the tongue position for retracted *r*, and the *r* disappeared, giving cacuminal *d* (this in Sweden especially, as in *gjorde*, *fort*). Cf. Southern English: *ford*, *hurt*. In Norwegian a faint murmur for the *r* is nearly everywhere heard;¹⁴ cf. some English in England and especially American English: *ford*, *hurt*. The retracted *r*, and for the most part also the trilled *r* disappeared in Danish in the late Middle Ages and early modern times, being replaced by a uvular *ʀ*. This is today a distinguishing mark between Danish on the one hand and Norwegian and Swedish on the other. In pronouncing the cacuminal *r* or *l* here considered the tongue position of the following velar or labial sound is anticipated while pronouncing the *r* or *l*, so that the tongue rests in the same position in uttering the whole combination; as *lk* in *folk*, or *lm* in *halm*.

The examples cited here and above will have to suffice to illustrate how in modern Norwegian and Swedish the influence of velar environment operated to bring about cacuminal *r*, and cacuminal and 'thick' *l*. It is important to observe also that the situation in the dialects and the standard languages today corresponds closely to that in OSc. of the literary period. By that I mean that where we have a fracture-form, or had in ON, OSw., and OD, we find a velarized *r* and *l* today. The fracturing in OSc. was merely continuing the velarizing influence into the preceding vowel, if the preceding vowel was capable of suffering velarization.

How would the cacuminal quality of the consonants be indicated by a scribe who wished to indicate it? One way would be by some diacritical mark. That is just what many a scribe did do in the XIIth-XIVth

¹² Noreen called the Swedish cacuminal *l* 'ein zwischen *r* und *l* schwebender laut'.

¹³ 1881 For Swedish the nature of the cacuminal and supra-dental *r* and *l* were first fully defined, and the distribution in the dialects of Sweden at the time (1876) given, together with local differences, etc., by J. A. Lundell, the inventor of the Swedish phonetic alphabet, and published under the title *Det svenska Landsmåls Alfabetet* in the second issue of *De svenska Landsmålen ock svenskt Folklif* 1. 157 (on *r* and *l*, 33-51). See Bibliography under 1879.

For present-day Norwegian John Storm, inventor of the Norwegian phonetic alphabet, deals fully with the Norwegian *r* and *l* in the first volume of *Norvegia*.

¹⁴ Storm, *Norvegia* 1884.

centuries in Western Norway and in Iceland. In a short article, IF 4. 320-3, A. Noreen showed that in Old Icelandic some MSS employ an accent over an *a* or an *o* followed by *l* + the consonant *g*, or *k*, or *p*, or *f*; in other words the accent marked a velarized *l*.¹⁵ In a study of the language of the Old Norwegian Codex AM 619 Quarto, date ca. 1225, I found two instances of the same practice.¹⁶ It may be seen in other MSS.

I shall go a little farther back in time for an actual example of consonantal breaking before retracted *r* + dental and *l* + dental. It occurs especially in OD and OSw., hence it is called the East Scandinavian breaking. In OD *y* is broken to *iu* before *rth*, *rt*, *rn*, and sometimes before *rr* and *rk* (Br-N 1. §183). Examples: *Giurths hoc*, place name, ca. 1150; *hyrde* > *hiwrde*, *hiorde* 'shepherd'; *kyrtel* > *kiurtel* 'kirtle'; *skyrt* > *skiurt* 'skirt'; *hyrna* > *hiurne* 'corner'; *thyrst* > *thiurst* 'thirst'; etc. In Danish the phenomenon is especially characteristic of Jutlandic; it is often lacking in standard modern Danish, which is based mainly on East Danish or Sjaellandic.¹⁷

In OSw. there appear not only breakings before *r* + consonant, as in OD, but also before *l* + consonant, as *skiuld* from *skyld*; *iniulfuæ* from *inylfuæ*, etc., A. Noreen, Altschw. Gr. §127, 2.

In late Old Norwegian a similar breaking occurs in the name *Ghiurder* in charter DN I for Tunsberg 1391, noted by J. Storm, 1884. 106, Note 2; and in *hyrdir* to *hiurdir*; *kyrkia* to *kiorkia*; *kylna* to *kiulna*; *kætil(l)* to *kætiul*, Noreen, 1913. §103.

It is apparent that these are all consonantal fractures, and that the cause is the retracted *r* and *l*. It is but carrying into a later age and to another front vowel the same process that was operating on short *e* in the early period of OSc. breaking.¹⁸

Breaking by the influence of consonantal groups beginning with a liquid was in operation among the Jutes, Angles, and Frisians before the

¹⁵ Lengthening of *a* (and other guttural vowels) before *lv* and *lp*, 'as in OIC., is also assumed for OSw. by Axel Kock in Arkiv 1889. He thinks there was lengthening in some dialects also before *lg*, *lk*, and *lm* (382).

¹⁶ In the Introduction of the photographic edition of the Old Norwegian Konungs Skuggsjá (Speculum Regale), MS 243 B, a, Folio, I have called attention to a group of scribal errors in the writing of *rd*, *rn*, *lf*, etc. Of these the writing *gird* for *girnd*, and *siafræði* for *sialfræði* seem due to the cacuminal *r* and *l* in such position in the scribe's pronunciation.

¹⁷ Brøndum-Nielsen 1928. 183.

¹⁸ A. Noreen, Geschichte der nordischen Sprachen³ §§14.4, 103. The discovery is Noreen's, and was published in §§103, 153c of the first edition.

Anglo-Saxon tribes settled in England in the 5th century. Immediately north of the Angles and the Jutes were domiciled the Scandinavian Jutes in Jutland and their kinsmen on the nearby Danish isles. Of the close cultural contact between the Anglo-Frisians and the Scandinavians in early times there are many evidences. Of particular interest here is the fact that Old East Scandinavian and Frisian share, not only the late sequel to old fracturing briefly considered above, but also another earlier, so-called *w*-breaking. In this *i* is broken to *iu* before the combinations *ggw*, *ngw* and *nkw*, as in OSw. *siunga* 'to sing', Gmc. *singwan*, which also is *siunga*, in OD and in OFrisian; similarly *siunka*, 'to sink', and several other words.¹⁹ The *-iu-* form is today the correct one in standard spoken Swedish. Whether this *w*-breaking arose in Anglo-Frisia or in Southern Sweden is still, I suppose, an open question. But there can be no doubt that the breakings which are the subject of this paper reached the South Scandinavians from the Angles, Jutes, and Frisians.

The fracture-diphthong in PrScandinavian would at first have had a velar glide as its second element; and no doubt a long time would have elapsed before the new pronunciation was recognized. (Most, even educated, speakers of English to-day do not recognize the presence of certain diphthongs in English which have been a feature of spoken English for several hundred years.) The only records we have in OSc. of the 6th and 7th centuries are short inscriptions; words where breaking could operate are few. And it is apparent that there was a good deal of uncertainty about how the new diphthongs should be written.

It was so also in PrEnglish with consonantal breakings, and especially with vocalic breakings, as we see from the writing of the Anglo-Saxon names in Bede's *Historia Anglorum*, which is our first English source for observing such forms. For example the place-name *heorotford* is written *herudford*, three times, and *heruðford*, once, where there is consequently, no effort to differentiate the fracture *eo* from ordinary *e*. The name is once written *heorotford*, where it is spelled as in the later accepted form. But by the side of these writings there appear also the two writings *hreudford* and *hreoutford*; in this last case the broken vowel and the vowel *u* of the suffix both appear after the *r*. All these forms reflect

¹⁹ Siebs, 1889. 148, 152; Steller, 1928. 9, 2; Holthausen, 1925; Noreen, 1904 §127 1; Brøndum-Nielsen, 1928 §182. For the presence of the form in North Frisian today see Jensen, 1925. 121. In Norway the broken form, pronounced *šunga* and *šo*nga*, may be heard in various places in Sogn; this variant of *syngva*, *syngja* is not recorded by either Aasen (1873) or Ross (1895).

clearly the difficulty the scribes had in coming to a decision on how the troublesome fracture diphthong should be written. Bede wrote ca. 725. In Caedmon's Hymn, breaking is expressed correctly in *mid-dungeard*, but not written in *ward* and *ælda*; Caedmon died ca. 680. On the *Ruthwell Cross*, Dumfries, Scotland, *heofon* is written *heafun*; on the *Bewcastle Monument*, Cumberland, breaking is not indicated. These are both of about the date 700.

The earliest instance of an effort to give written expression to a fracture-form in PrScandinavian is in the name *hAeruwulafiR* on the Istaby Inscription, southern Sweden, date ca. 650; it was not wholly successful; *hAeru* is without doubt intended for *heoru*. Cf. *hreoutford* above.

But out of this confusion a definite system gradually takes shape. In PROE the forms that we see emerging as the usual written ones in the oldest documents and inscriptions, and which had shaped themselves before in the spoken language, of course, do not exhibit any special influence on the part of the vowel in the following syllable in the case of consonantal breaking in WS, but seem to reveal such an influence in Anglian. Witness the fact that in the Lindisfarne Gospels *eorðo*, st. and wk. fem., is written *eorðo* (or *eorðu*) 79 times, and *earðo* or *earðu* only 7 times. And again, *hearta* (OWS *heorte*, PrSc. *hearta*) wk. neuter apparently, has the form *hearta* 24 times, as against *heorta*, 12 times.

However in OE, with its three sets of fracture-diphthongs, an adjustment of each, such that the second part of the diphthong would harmonize with, that is, be assimilated to, the *a* or the *o* of the ending, would have led to a system so cumbersome that it would very soon have broken down. Hence what took place was a kind of assimilation between the two parts of the fracture-diphthong, so that *iū* remained *iū* (later *io*, then finally coincided with *eo*), *eo* (in its various forms *eu*, *eo*, *eq*) became established as *eo*; finally *æq* and *æa* took the orthographic form *æa*.²⁰ Thus we have a high, a mid, and a low fracture-diphthong. (Note that Caedmon in his Death-Song wrote *uuuirthit* in line 1, but *uuuorthae* in line 5.) And so when vocalic breaking began to operate the system was carried into this continuation of the fracturing process, i.e., *eo* became the fracture-diphthong of *u-o/a*-umlaut, the quality of the fracturing velar vowel, as *a* or *u*, played no rôle any more, except to some degree in Anglian and Kentish, which here as in so many things stand nearer to ON.

²⁰ This cumbersome form was then simplified to *ea*.

In ON the development was to give the second part of the fracture-diphthong definitely the quality of the *a* or the *u* of the ending. It is interesting to see that already quite early perfect regularity was established in this respect. Here we have then a combined breaking-umlaut in the case of the long stems; in the case of the short stems it might be called simply an umlaut. In the latest phase of ON breaking (*feorða-feorðum*) the same adjustment took place.

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SOME TRAITS OF THE DAKOTA LANGUAGE

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In the following I will discuss a few features of the language of the Dakota Indians which seem to have a wider linguistic interest.

The first refers to the phonetic rendering of a close association of ideas. The initial vowel of Dakota words is preceded by a glottal closure. When, therefore, a word with terminal consonant precedes a word with initial vowel there is a decided break following the consonant. The consonant does not become glottalized but the glottal closure follows it. When two such words become intimately associated and form a unit concept the break disappears: *napo'g·na*¹ 'a handful', for *nap-o'g·na*; *wali'top'e* 'an oar', from *wa'l-i-top'a* (boat-rowing-instrument); *ha'pap'a'-ec'u'pi* 'moccasin game', for *hap-ap'a* 'moccasin striking', *'ec'u'pi* 'they do'.

A distinction is made between verbs that take the prefix *wa-* which expresses an indefinite object and nouns which contain the same prefix. The latter are unit concepts, the former express an indefinite object for which a definite object may be substituted: *waa'wayaka* 'he stands guard', *wa'wayaka* 'a guard'. When verbs of this type assume a special meaning they may also be contracted: *waa'gli* 'he brings something back home', *wa'gli* 'he comes back successful from a hunt'; *wayu'ga* 'he separates something from its covering'; *wo'ga* 'he husks corn'. The same phenomenon occurs in the possessive pronoun, intimate possession being expressed by contraction: *t'ao'wi* 'his earrings', i.e., those he made, or those he happens to wear; *t'o'wi* 'earrings he always wears and that nobody else has a right to wear'; *t'awo'wašte* 'his occasional good acts', *t'o'wašte* 'his goodness' as a permanent quality.

These examples show a close parallelism between the concept of psychological and phonetic unity. According to a communication of Dr. Gladys Reichard similar phenomena occur in Navajo: *hoyan cajan*²

¹ According to the customary orthography of Dakota *q*, *i*, *u* are nasalized vowels; *ž*, *š* correspond to French *j* and English *sh*; *č* to English *ch*, medial; *ǵ*, *ǵ* are velar spirants.

² *c* = *sh* English.

'my home'; *ca'a'yan* 'house in which I am living, not my property; *cu'a'* 'my wing' (a bird speaking), *ca'al'a'* 'my feather' i.e., the feather I use.

A second point is a curious contradiction between the ease of forming new words by means of affixes and composition and the frequent failure to treat such words according to their etymological structure. It must not, of course, be assumed that new words are consciously built up with an understanding of the meaning of the constituent elements, nor that these are present in the mind of the speaker; but, so far as my knowledge goes, their grammatical treatment follows the general rules of the language. A question regarding the meaning of the compound may elicit a folk etymology. Nevertheless in use the words are generally easily understood. Contractions or abbreviations of words frequently used do not seem unusual. Thus we have *wič'a'* 'raccoon', understood as an abbreviation for *wič'i'te g·le'ga* 'striped face'; *p'ežu'ta* 'medicine', from *p'eži'-hu'te* 'herbs-butt-end'; *p'eta'l* 'on the fire', from *p'e'ta aka'l* 'fire-on-top-of'. More remarkable are cases of metathesis like *hąkp'a'* 'moccasin strings', for *hąpk'a'*; *wąsma'hi* 'iron arrow head' from *mas-iron'*, *wą* 'arrow', *hi* 'tooth'.

Sometimes the grammatical forms show a complete misunderstanding, the phonetic form being more suggestive than etymology. Thus *ana'goptą* 'to obey', stands evidently for *ano'goptą* (*a* 'on'; *no'ge* 'ear'; *o'ptą* 'to turn towards'); *na* is taken for a prefix and the first person *wa* is inserted after *na*: *ana'wagoptą* 'I obey'. In the same way *ina'piskąya* is treated as though *na* were a prefix, the pronoun *wa* preceding the *p*. Still the derivation is *i-nap-i-ską-ya* 'against-hand-by-means-of-move-cause').

A third trait of Dakota is its old consonantic sound symbolism. The sets *s*, *š*, *h* and *z*, *ž*, *g* represent gradations, the *s* and *z* being the lowest, *š* and *ž* the middle, and *h* and *g* the highest grades. I have given many examples in a previous paper.³ A few of these will suffice to make the essential point clear. *sle'ča*, *šle'ča*, *hle'ča* 'to split things'; *m·nu'za*, *m·nu'ža*, *m·nu'ga* 'to crunch'. With *s* or *z* it is done easily, with *š* or *ž* with greater difficulty, with *h* or *g* with great difficulty. The grades of intensity are not always quite so clear. Sometimes the *š* series expresses wetness: *ska'pa* 'to slap', *ška'pa* 'to slap wet surfaces'; *ski'ca* 'to compress dry things', *škica* 'to compress wet things'. A few examples in addition to the list mentioned are: *ze'zeyya* 'dangling', *ap'a'-zezeyya* 'right on the edge, almost falling over'; *ge'geyya* 'hanging down'; *wašte* 'peculiar, good', *wahte'sni* 'bad (not good)'; *šloka* 'to take out of a

³ IJAL 7.112.

hole', *hlo'ka* 'to break a hole'; *b-laska* 'flat and hard', *blaška* 'flat and flabby'. *zi* 'yellow', *ži* 'tawny', *gi* 'brown'. It may well be that the three stages have reference rather to the consistency of material than to intensity. A good many examples can be interpreted more easily in that way.

E. Kennard⁴ has found a number of pairs of similar character in Mandan: *dusa'p* 'to pull a little', *duha'p* 'to tear'; *se'ro* 'to jingle', *he'ro* 'to rattle', etc.

Lipkind has discovered a considerable number in Winnebago.⁵ Examples are: *sq'wq* 'to be melted', *šq'wq* 'to be softened', *hq'wq* 'to be moistened' (Dakota *spa*, *špa*, *hpa*); *si'ri* 'to be squeezed out', *hiri* 'to be mashed' (Dakota *šli*, *hli*); *k'es* 'to be scraped bare', *k'eh* 'to be scraped'.

This consonantic symbolism is similar to the diminutive and consonantic shifts of some of the Pacific coast languages. In Chinook we have changes from sonants to glottalized sounds to express diminutives⁶ and also changes in the place of articulation of palatal affricatives. Quite similar changes occur in diminutive forms in Sahaptin.⁷ The velar consonants become mid-palatal and *n* changes to *l*. In Wiyot, a Californian language, the following changes are found in the diminutive: *d* becomes *ts*, *t* > *ts* or *tc*, *s* > *c*, *l* > *r*.⁸ In Coos⁹ traces of a similar process are found. It also seems to be a live process in Tillamook, a Salishan dialect.¹⁰

The fourth point refers to the demonstrative pronoun. It is a feature that is not particularly characteristic of Dakota, but appears in many North American languages. We are accustomed to a development of the demonstrative pronoun parallel to position 'near me' and 'away from me', or to position 'near one of the three personal pronouns'. Many American languages have a strong feeling for localization, and add to the fundamental ideas of position 'near one of the three personal pronouns' reference to the concept of visibility and invisibility.

⁴ IJAL 9.32.

⁵ Personal communication.

⁶ Edward Sapir in F. Boas, *Handbook of American Indian Languages* 1.638; Washington, 1911.

⁷ Melville Jacobs, *A sketch of Northern Sahaptin Grammar*, University of Washington, *Bulletin in Anthropology*, Vol. 4, pp. 136, 139.

⁸ Gladys Reichard, *Wiyot Grammar and Texts*, University of California Publications in Anthropology and Ethnology, Vol. 22, p. 29.

⁹ Leo J. Fracktenberg, *Coos*, in F. Boas, *Handbook of American Indian Languages* 2.383, Washington, D. C.

¹⁰ Manuscript by May Edel.

This makes the exact definition of demonstratives particularly difficult, because it is always necessary to reconstruct the position in which the speaker imagines himself to be. In Dakota we have the fundamental forms *le*, *he*, *ka*, *to* which express 'near me', away from me', 'away from me visible', 'somewhere'. The concepts 'near thee' and 'near him' are not distinguished. The particular place in reference to two persons is expressed by the suffix *-k'i* (after *e* > *c'i*). Thus *le'c'i* means 'here and away from you or him', *he'c'i* 'there and away from me', *ka'k'i* 'yonder visible, away from me'. With the ending *ya* these forms express a region rather than a spot.

In movement Dakota distinguishes between thither and hither, completion of movement thither and hither, movement thither and hither to a place formerly occupied (i.e. return); completion of movement thither and hither to a place previously occupied (i.e. arrival returning). The combinations of the verbs of arrival and motion express the concept of starting, e.g. he went to arrive there, i.e. he started going thither, etc.¹¹

Dakota is also remarkable for the tendency to express by means of particles, conjunctions, and adverbs the general emotional state accompanying the statement. Thus the three particles *kî*, *k'u* and *wq* (definite past, and indefinite) at the end of the sentence express respectively annoyance, the feeling that a statement is unnecessary because known to the person addressed, and pleasant agreement. Thus in a sentence meaning 'I'll finish this first' the addition of *kî* implies the speaker's annoyance at being interrupted; with *k'u* the implication is that the person addressed knows that the speaker wishes to finish first; with *wq* that there is pleasant agreement. Similarly in 'I gave it to him, but he did not take it': if for 'but' *yesq* is used, the implication is that he ought to have taken it; if *tk'aš*, that the offer ought not to have been made; if *k'eyas*, an indifferent attitude is implied. Similar implications can be made by varying the translation of 'instead' (*eha'*, *k'eš*, *iye's*, *e'e'*) in sentences such as 'he gave me a stone instead of bread', 'bread instead of meat', 'meat instead of bread'.

The distinction of visibility and invisibility is made in a number of languages. In Kwakiutl the glottal stop added to demonstrative forms expresses invisibility *t'e'samga* 'this stone visible' (*-ga* indicates 'near me'), *t'e'samga'* 'this stone invisible'. In Quileute¹² the independent demonstrative pronouns for visibility and invisibility are distinct.

¹¹ Franz Boas and Ella Deloria, Notes on the Dakota IJAL 7.117.

¹² M. Andrade, Handbook 3.246.

Kutenai¹³ has three positions: indefinite, here or previously referred to, and absent. Each of these has one form for visible, one for invisible, the latter distinguished by insertion of an *a*, e.g. the prefix *sn-* means 'here visible standing', *san-* 'here invisible standing'. In Chinook also the independent demonstratives are divided into the classes visible and invisible.¹⁴

Reference to a third person is highly developed in Tlingit. We find *yá* 'this near me', *wé* 'that near thee', *hé* 'that near him and nearer than you', *yú* 'that near him and farther away than you.'¹⁵

In Coeur d'Alène¹⁶ all expressions regarding movements are expressed by means of prefixes. If only a speaker and the person addressed are involved the terms hither and thither are sufficient. When a third place is involved a definite position of reference must be included. If this point is termed 'there', the expressions would mean: (1) from beyond there hither and to beyond there, (2) from beyond there hither, to there or this side of there, (3) from there or this side of there hither, (4) from this side of there thither to beyond there, (5) from this side of there thither to there or to this side of there, (6) from beyond there thither to farther beyond there.

¹³ IJAL 4.57

¹⁴ From Handbook 1.617.

¹⁵ F. Boas, Grammatical Notes on the Language of the Tlingit Indians, Philadelphia, University Museum, Anthropological Publications 8.1.113 (1917).

¹⁶ Gladys Reichard, Grammar of Coeur d'Alène, manuscript (to appear in third volume of the Handbook of Am. Indian Languages 1937).

MISCELLANEA

DIE METHODE DER WORTFORSCHUNG

Die Methoden der Wortforschung können im allgemeinen nicht den Anspruch erheben, daß sie mit den neuesten Erkenntnissen der Entwicklungsgeschichte Schritt gehalten haben. Es genügt nicht, Wurzelwörterbücher zusammenzustellen und alle Wörter, die die gleiche Wurzel haben, unter eine Rubrik zu bringen. Das ist eine gewiß sehr notwendige und oft mühevoll Arbeit, aber sie endet meist auf einem toten Geleise. Was nützt uns beispielweise die Erkenntnis, daß die semitische Wurzel *p̄hr* 'sammel' bedeutet, und daß behauptet wird, von dieser Wurzel stammen nun alle Wörter mit den Radikalen *p̄hr*, einschließlich *p̄hru* 'Töpfer' (weil dieser den Ton 'sammelt')? Was nützt es uns, wenn die indogermanische Sprachwissenschaft feststellt, daß *agr-* das gemeinsame Wort für 'Acker' ist, was nützt es, wenn wir eine semitische Wurzel *yrq* aufstellen, um dann zu behaupten, das Wort für 'grün' sei davon abgeleitet? Ist denn das 'Sammeln' früher als der Mensch, der sammelt, ist das 'Grün' eher als das 'grüne Kraut', kann man sich bei einem Urwort *agr-* überhaupt etwas denken? Das soll doch letzten Endes das Ziel der Sprachwissenschaft sein, die Entwicklung des menschlichen Denkens, das in der Sprache seinen beredtesten Ausdruck findet, zu erforschen, wenigstens soweit uns das möglich ist. Und es ist bei einigem guten Willen wirklich möglich, weiter zu kommen, wie nur an obigen Beispielen gezeigt werden soll.¹

Das semitische Wort für 'Töpfer' ist noch heute *fahhâr* (aus *pahhâr*). Gehen wir aber der Geschichte des Wortes nach, so finden wir als älteste Form *paḥar*, nicht mit der sonst im Semitischen üblichen Verdopplung des mittleren Radikals und nicht mit der Länge des zweiten *a*. Das muß uns stutzig machen. Wir wissen heute, daß das Wort mit dem sumerischen *baḥar* 'Töpfer' zusammenhängt. Aber ist das semitische aus dem sumerischen entlehnt oder umgekehrt? Da hilft kein Sträuben; wir müssen jetzt kulturgeschichtlich weiterdenken. Ist es

¹ Die hier gekennzeichnete Methode habe ich in meinem babylonischen Glossar zu den neubabylonischen Verträgen mit überraschendem Erfolge angewandt. Es ist bedauerlich, daß das Erscheinen des Glossars, das in Hunderten von Fällen Klarheit schafft, finanziellen Schwierigkeiten begegnet.

wahrscheinlich, daß die in Babylonien eingewanderten Semiten, von denen ein Text um 2000 v. Chr. noch sagt, daß sie rohes Fleisch aßen, keine Häuser kannten und ihre Toten nicht begruben, die Töpferkunst zu den ihnen weit überlegenen Sumerern importiert hätten, etwa semitische Stämme, die um 3000 auf einer ganz anderen Kulturstufe standen als die um 2000 gekennzeichneten Barbaren? Das wird keiner behaupten wollen. Also ist das Sumerische die gebende, das Akkadisch-Semitische die empfangende Sprache. Sind wir soweit gelangt, so haben wir schon einen guten Schritt vorwärts getan.

Aber wir dürfen hier nicht stehen bleiben, wofern uns der Weg nicht verbaut ist. Wir müssen sehen weiter zu kommen, und das können wir hier. Im Sumerischen heißt der 'Töpfer' *ba-ḥar* deshalb so, weil er 'ab-bildet'; denn *ba-* bedeutet 'ab' (Richtungspartikel) und *ḥar* bedeutet 'bilden'. Der Töpfer ist also der, der etwas abbildet (hebr. *ḥōšēr*). Wenn wir nun weiter fragen, warum im Sumerischen *ba-* 'ab' und *ḥar* 'bilden', 'formen' ist, so stehen wir vor einem noch unübersteiglichen Hindernis. Wir haben aber das gute Gewissen, daß wir soweit den Berg erklommen haben, wie das nur irgend möglich ist. Daß die Wurzel *pḥr* erst sekundär von dem sumerischen Lehnwort *paḥar* 'Töpfer' gebildet ist, versteht sich dann von selbst; es bleibt für den Lexikographen nur die Aufgabe, die weitere Entwicklung der einzelnen Ableitungen dieser 'Wurzel' zu verfolgen und zu registrieren.

Das indogermanische *agr* ist zunächst nur eine Geräuschfolge, bei der sich niemand etwas denken kann. Wir kommen mit unsern Mitteln vorläufig oft auch garnicht weiter. Aber hier liegt die Etymologie klar auf der Hand. Haben die Arier überhaupt den Acker gekannt, als sich ihre Sprache bildete? Sie sind ein sehr wanderlustiges Volk gewesen, das sich erst in verhältnismäßig später Zeit stellenweise sesshaft gemacht hat. Dennoch muß diese Sesshaftwerdung schon eingetreten sein, als es noch eine Einheit bildete, etwa gegen Ende des 4. Jahrtausends. Manche Stämme hat die Wanderlust, aber auch wohl oft der Zwang des rauen Klimas, weit weggetrieben: wir erinnern an die Mitannier, die Inder, und die Tocharer. Schon früher haben sich, wie es scheint, die Nasier (Hethiter) von dem Kern abgelöst. Sie haben wohl auch nicht das Wort *agr*, was indes Zufall sein könnte. Das Wort *agr* findet sich auch im Sumerischen als *a-gār* und bedeutet das, was der Akkader, der das Wort entlehnt hat, mit *ugar* bezeichnet, d.h. 'eine unter einheitlichem Bewässerungssystem stehende Flur'. Daß dieses die Bedeutung des Wortes ist, zeigen die Wirtschaftstexte zur Genüge. Im Sumerischen bedeutet *a* 'Wasser'—warum, wissen wir noch nicht—

und *gār*, das nur eine Variante des gewöhnlich *gar* geschriebenen Wortes ist, bedeutet 'ponere'. Eine akkadische Entsprechung kann es deshalb nicht geben, weil das Akkadische (wie das Semitische überhaupt) keine abstrakten Verba kennt²; es wird meist mit *šakānu*, wiedergegeben, was 'ansetzen' heißt. Die Bezeichnung des Ackers als des 'unter Wasser gesetzten' ist für ein Volk, das die größten Irrigationssysteme des Altertums ins Leben gerufen hat, eine treffende Bezeichnung für den Acker. Wie ist aber das Eindringen eines solchen Lehnwortes in so früher Zeit ins Indogermanische möglich gewesen?

Die Arier sind so früh niemals nach Babylonien gekommen. Es bleibt keine andere Möglichkeit, als daß die Sumerer einmal in engerer Berührung mit den nordisch-arischen Völkern gestanden haben. Ihrer Rasse nach sind die Sumerer aralisch³ und stehen damit in engster Beziehung zu den Meditteranen, mit denen sie auch den Schädelindex (72) teilen. Daß sie nicht in Babylonien beheimatet waren, ergibt sich auch aus anderen Gründen⁴. Sie müssen vom Aralgebiet nach Babylonien im 4. Jahrtausend eingewandert sein. Alles spricht dafür, daß sie schon dort Wasserbauten hergestellt haben, wozu sie wohl die allmähliche Austrocknung ihrer Heimat zwang. Aber auch im Aralgebiet sind sie kaum urheimisch; dagegen spricht ihre nahe Verwandtschaft mit den Mittelmeervölkern. Sie stellen einen Typ des Aurignac-Menschen dar, der einst weite Teile Europas besiedelte.

So werden wir wohl zu der Annahme gezwungen, daß sie, deren Rassentyp noch heute in Mitteleuropa auftritt, wo er allerdings eine erhebliche Aufhellung im Pigment erhalten hat, einst auch mit den Arieren in nächster Berührung gestanden haben. So erklären sich manche Lehnworte der Urzeit wie 'Kuh' (sum. *gu*), 'Erz' (sum. *urud*), auf die hier nicht näher eingegangen werden kann.

Die Wurzel *gar*, die zu erklären noch unmöglich ist, finden wir auch in einigen Wörtern, die als Lehnwörter ins Akkadische übergegangen sind, wie *na-gar* 'An-setzer' 'Zimmermann' (noch heute sem. *naggār*), der die Türen einsetzt, *in-gar*, teils 'Ein-leger', 'Ackermann', der den Samen in die Erde legt (akk. *ikkar*), teils 'eingelegtes', so die 'Wand', die man in das Haus legt. Zu beachten ist, daß *in-*, *na-*, *ba-* sowohl mit den indogermanischen 'Präpositionen' *in*, *an*, *ab*, als auch mit den semitischen Partikeln *in*, *an* Verwandtschaft zeigen, wie ja auch das

² Hierüber Näheres in einem Aufsatz über Akkadische Sprachellipsen (Orientalia).

³ Ich verweise auf mein Subartu (Berlin-Leipzig 1936).

⁴ Subartu 6 ff., was inzwischen manche Bestätigung gefunden hat.

Semitische ganze Wortgruppen wie *zi-kar* 'kampffähiger Mann' (davon dann die Wurzel *zkr* 'zeugen') aus dem Sumerischen gebildet hat. Hier müssen Zusammenhänge vorliegen, die wir bisher nur ahnen können⁵.

Nehmen wir als letztes Beispiel das sem. *yrq* 'grünen', so ist das kein sumerisches Lehnwort. Die Farbenbezeichnung 'grün' kann aber nicht der Ausgangspunkt für diese Wurzelbildung sein; denn derartige Abstraktionen dürfen wir für die Urzeit nicht annehmen. Die Farben gehen auf konkrete Gegenstände zurück, an denen die Eigenschaft besonders auffällt; so akk. *ell* 'weiß' auf 'Schnee' (*ell*), *šalm* 'schwarz' auf 'Schattenriß' (*šalm*), *uqnû* 'blau' auf den 'Lapislazuli' (*uqnû*). So dürfte *yrq* 'grün' auf das 'Grünzeug' zurückgehen, das dem semitischen Nomaden am unentbehrlichsten war, das 'Gras'. Doch wollen wir hier abbrechen.

Der Zweck dieses Aufsatzes war es zu zeigen, wie man vorgehen muß, um in der Wortforschung zu Zielen zu gelangen. Es geht nicht ohne ausgiebige kulturgeschichtliche Ueberlegungen.

A. UNGNAD

LATIN *tepidus*, SPANISH-PORTUGUESE *tibio*

The Latin adjective *tepidus* 'lukewarm' survives into Romanic (with the exception of Roumanian), in forms which, whether partly or wholly learned, or purely popular, for the most part reflect the open *e* (Latin *ē*) of the initial syllable. Thus we have French *tiède*, Prov. *teve*, Ital. *tiepido* and *tepidò*.¹ But Spanish and Portuguese have *tibio*² ('lukewarm, careless, remiss', in both languages), the vowel of which is the regular development of an original *ī*, or of an *ĩ* or *ē* before *i* of the next syllable. The irregularity has been noticed and commented upon. Jules Cornu, in *Die Portugiesische Sprache* §7,³ asserts that even the open *ē* became *i* if the *i*-sound of the next syllable was retained in pronunciation; and this view is repeated by J. J. Nunes, *Compendio de Gramática Portuguesa* 157 (2nd ed., 1930). Fr. Hanssen, in his *Spanische Grammatik* §11.1 (1910), makes the process somewhat more credible by assuming that the open *e* became close in imitation of the derivatives *tibieza* (Sp. 'lukewarmness', Port. 'nonchalance', from

⁵ Näheres an anderer Stelle.

¹ Other dialectal forms and derivatives may be found in the etymological dictionaries.

² Also Port. (archaic) *tibo*; but Mod. Port. *tépido* is learned.

³ In Gröber's *Grundriss d. rom. Phil.* I² (1904-6); a rather similar view is given by E. H. Tuttle, *Mod. Phil.* 11. 348 (Jan. 1914).

**tepiditia*) and *entibiar* (Sp. 'to cool, moderate', Port. 'to moderate, discourage', from **in-tepidāre*), wherein the vowel *e* became close because it was unaccented, being pretonic.

The influence of these derivatives is in fact a possibility, but it is rendered unlikely because of two facts. The derivatives *tibieza* and *entibiar* are much rarer than *tibio* itself; and the syllable *ti-* is in the derivatives not truly unaccented, since it bears the secondary accent which comes at the interval of two syllables from the primary accent (in some forms of *entibiar* the syllable *-ti-* bears the primary accent). A more convincing explanation for the *i* of *tibio* is found by assuming that in the Hispanic peninsula the Vulgar Latin **tepidu* became **tīpidu* by association with (the Vulgar Latin form of) Latin *frigidus* 'cold', which belongs to the same semantic group. There is then no difficulty with the development.

This association is rendered more probable by the coincidence that in this territory and only in this territory, *frigidus* retains its close *i*, shown by Old Sp. *frido*, Sp. Port. *frio*. In Italian, Provençal, French, the basic form for the later words is **frigidus*, in which the radical vowel has been assimilated to that of *rigidus* 'stiff', presumably because freezing cold stiffens all things⁴: Ital. *freddo*, Prov. *freg*, Fr. *froid*, cf. Ital. (of Siena) *reddo*, Prov. *rege*, Fr. *roide raide*. Thus the pre-forms are:

Ital., Pr. /, Fr.: **tēpidu*, but **frīg(i)du*, **rīg(i)du*.

Span., Port.: **tīpidu*, **frīg(i)du*; but **rīg(i)du*.⁵

ROLAND G. KENT

CATALAN *migrar-se* 'TO BE BORED'

C. C. Rice, *LANGUAGE*, 11.239, is right in his opposition, backed by REW³, s.v. *migrare*, to a juvenile suggestion of mine (1913) which put the equation: Catal. *migrar-se* = Lat. *migrare* 'to migrate'. But his suggestion: *migrar-se*, a back-formation from *migranya* 'headache', seems to me erroneous. Firstly, the connection between *campagne* and *camper*, *montagne* and *monter* seems to me a rather loose one in the minds of the speakers of modern Romance languages, so that a back-

⁴ References for this and other views are given in W. Meyer-Lübke, *Rom. etym.* Wörthb., s.v. *frigidus*.

⁵ In the Hispanic peninsula *rigidus* left few continuants, apart from learned words. Port. *rijo* 'harsh, rigid', is regular; it has an abstract derivative, *rijeza*. Sp. *recio* 'strong, vigorous, hard, heavy' is irregular both in its *e* and in its *c*, and has been taken as a back-formation from *arrecir-se* 'to become stiff and swollen from cold', which developed regularly from *ad* + *rigescere*; cf. Meyer-Lübke, LEW³, No. 7312a (who cites Galician *arrecerse* and not Castilian *arrecirse*).

formation *migranya*—*migrar* could not be modeled on these examples. Moreover, the parallel quoted from REW³, no. 676 (not 55!) s.v. *arrogare*: 'pisto. *rogare* ... "laut drohen" ... Rückbild. von *arroganza*', is not valid. Rice, trusting Meyer-Lübke, known as untrustworthy in his quotations, repeats the reference to 'Salvioni, ZrPh 28.186', but he cannot have seen this passage: for (1) the passage alluded to is by S. Pieri, not by Salvioni; (2) Pieri explains the Italian word-family by Latin *rogare* 'pretendere' (without back-formation, which is absolutely unnecessary), or by Lat. *raucare*. REW s.v. *rogare* (no. 7361) has the same word family once more, (only Meyer-Lübke writes *pisto. rugare*), but here he speaks no more of 'Rückbildung' and attributes the same passage of ZrPh 28.186 to Bertoni! The weakness of any argument based on so many confusions is obvious.

Finally, Rice is wrong in isolating the Catalan word from a well-known word-family (as I did myself in my early paper): *migrar-se* 'to be bored' and 'aixiquirse, arrugarse' (the second sense seems to me, in contradiction to Rice, the original one, because the concrete generally precedes the abstract) and the Prov. *migra* 'être chagrin, inquiet, impatienter ...' must be associated with:

1. The participle *migrat* 'petit, mesqu' (ex.: *est gra tan migrat que apenas se pogué menjar de ell*, 1875, given by *Diccionari Aguiló*, which uses the same word also to explain *minvol* (Majorca) 'migrat, raquític, se diu de tot fruit que se seca abans d'arribar a saó').

2. The Prov. *mingre* 'piètre, maigre; mince, débile, étriqué', *mingrot*, *mingroulet* 'maigrelet, frêle', and the forms without *r*: Prov. *mingoulet*, *mingouloun* 'très fluët, frêle, maigrelet'. These last forms have been explained by REW³ by *minuare*. There must have been, beside the development of *-ny-* > *-nv-* shown by Cat. *minvar* (and *-ny-* > *-rb-*: *birbar*, Coromines, *Butlletí de Dial. cat.* 23. 277), another treatment *-ny-* > *-ng(u)*: Old Prov. *minga*. Bearn. *mingoe* (cf. Span. *mengua*, Port. *mingoa*), as in *habuisti* > *aguiet-vy-* evolves to *-gu-*. The Prov. *mingre* (semantically equivalent to Cat. *minvol*), *mingrot*, *mingroulet* may have their *r* from *magre*. Now the Prov. and Cat. *migrar* are probably reductions of **mingrar* = *minuare*, which have lost their *n* by influence of the *magre* family or by the reduction of *-ngr-* > *-gr-* (cf. *pulvera* > O. Prov. *poldra* > *podre*, Appel, Prov. Lautlehre §64). From the meaning 'to diminish' it is easy to come to 'rabougrir, étriquer' and from 'rabougri, fané' to 'chagrin, inquiet, languissant'.

The French *mingre*, *mingrelet* (Baif, XVIth cent.), *mingrelin* (1406, Godefroy) are probably borrowed from Provençal, not Old Fr. *heingre* 'chétif' + *maigre* (Bloch, s.v. *malingre*; Gamillscheg, s.v. *mingrelet*;

Sainéan, *Les Sources indigènes*, etc. 2.331). Here is also to be listed the Ital. *mingherlino* 'di pers. piuttosto sottile e magra, ma non senza snellezza e sveltezza' (Petrocchi).

The French adjective *malingre*¹, of argot origin (Sainéan, *Sources de l'argot ancien*: Bouchet, XVith cent.), *malingreux* 'classe de gueux ayant de fausses plaies et la face jaune' (ib.), can not be *mal-heingre*, with Old French *heingre* 'maladif', because such tautological compositions of an adjective with *mal-* are totally unknown. (Only substantives like *male faim*, *male peste* exist.) As Godefroy gives *malingeus*, *malengous* 'malingre', which resembles *maligneux* 'dangereux, malin', and as Engl. *to malingre* (attested with the form *maligner* in 1768, in the form *malingerer* in 1785; the verb *to malingre* appears only in 1820) presents the palatal sound, I would suggest *malignus* adulterated by *mingre* or *heingre*: 'déformation jargonnesque de *malade*' (Sainéan, *Sources de l'argot*) gives no explanation of the *-ingre*². Old Fr. *heingre* is not clear; *pingre* 'avaricious' is explained by Gamillscheg by Lat. *piger*.³

LEO SPITZER

INDIAN AND CREOLE BARBOKA, AMERICAN BARBECUE

The editors of the Oxford English Dictionary give the following etymology for *barbecue*:

ad. Sp. *barbacoa*, a. Haitian *barbacòda* (E. B. Tylor) 'A framework of sticks set upon posts'; evidently the same as the *babracot* (? a

¹ Bloch gives the word as a proper name for 1263, but Godefroy, *Compl.*, has an example of 1249.

² Cat. (Majorca) *mallench* 'llarg, prim, esquifit', 'mal-engarbullat', *mallenga* 'bagassa, ramera', belong probably to *mallarenga* 'mésange', 'persona xerraire' (cf. REW³ s.v. *meisinga*).

³ The information of Mr. Rice is often very deficient. So he gives (LANGUAGE 13.19) the explanation of Spanish *enconar* 'to inflame,' 'to anger,' Catalan *enconar* 'to taste,' 'to give the first milk to a baby,' 'to poison,' = Lat. *in* + *cōnari*, 'to test'. But, as he uses the third edition of REW, I wonder why he has not looked at the Nachträge, No. 4450a, where exactly the same etymology is given, according to a suggestion of mine in RFE 18.237 on the basis of Andalusian *enconarse*, 'aprioparse arteramente algo ajeno', 'interesarse', and Don Quijote 2.335 (ed. Rodríguez Marín): '¿Quién pudiera imaginar que D. Fernando ... se había de *enconar* (como suele decirse) en tomarme a mi una sola oveja?' which passage shows how neologistic (or dialectic?) the verb was at Cervantes' time. Antonio Alcalá Venceslada, *Vocabulario andaluz* (1934), who gives all this evidence, also quotes a modern passage of Rodríguez Marín with the same meaning 'interesarse': '¿Había yo de *enconarme* en intereses de usted?'

French spelling) of the Indians of Guiana, mentioned by Im Thurn. (The alledged Fr. *barbe à queue* 'beard to tail', is an absurd conjecture suggested merely by the sound of the word.)

They therefore assume a Negro or Guiana Indian origin for this word. In the light of this etymology, a passage found in a book by Jean Bernard Bossu (1720-1792), a French officer who made three prolonged sojourns in the Mississippi valley between 1751 and 1771, should prove quite interesting. In a letter sent from the 'pays des Akanças' on December 13, 1770, Bossu writes about a medical practice of the natives:

Les Sauvages se font aussi boucaner, c'est-à-dire, passer par une sorte de fumigation. L'étymologie de ce mot vient des Indiens sauvages antropophages, qui, après avoir coupé par quartiers les prisonniers qu'ils avaient fait à la guerre, les mettoient sur des claies, sous lesquelles ils allumoient du feu. Ils nommoient ces claies *Barboka*, le lieu *boucan*, & l'action *boucaner*¹, qui signifie rôtir, & fumer tout ensemble.²

He also adds the following foot-note about another meaning of *barboka*:

Les Créoles & les blancs de l'Amérique appelloient faire un *barboka*, une espèce de fête champêtre, où le plat de fondation est un *cochon maron* que l' on fait griller tout entier sur les charbons.³

Everybody will recognize in *barboka* the same word as the English *barbecue*. It is certainly as near *barbecue* as *babracot*, which the Oxford English Dictionary quotes from the Indian of Guiana. Moreover, the Indian and the Creole acceptations of the word indicated by Bossu correspond to the two usages which the Oxford English Dictionary gives as specifically American. It should be stressed that the French traveller, who gives as Indian the word *barboka* in the sense of hurdles over which meat is roasted,⁴ had very close contact with the Arkansas and the Illinois Indians during the twelve years that he spent in the Mississippi valley. He should therefore be considered a reliable in-

¹ *Boucaner* is the regular word in French Canadian for the verb *to smoke* in all its acceptations, and *boucane*, *sf.*, corresponds to the English substantive *smoke*. *Boucane* and *boucaner* are also used by the French-speaking people of Vincennes, (Ind.), Southern Illinois, Missouri, and Louisiana.

² *Nouveaux Voyages dans l'Amérique septentrionale* . . . 178-9, Amsterdam, 1777.

³ *Ibid.*, 178

⁴ The Oxford English Dictionary gives as the primary meaning of *barbecue*: 'A rude wooden framework, used in America for sleeping on, and for supporting

formant. The word must have been a native word, as the Arkansas and the Illinois Indians, who were under French influence, had no relations with the Spaniards and could hardly have borrowed it from the Spanish *barbacoa*. *Barbacoa*, moreover, is used only in Mexico and San Salvador,⁵ and itself may have been taken from the local Indian dialects.

The Creole *barboka* is the Arkansas Indian word with an extended meaning. For Bossu, whose books deal with a country settled at that time exclusively by French people, the terms 'Créoles' and 'blancs de l'Amérique' necessarily refer to the French. The wording of the text makes it also clear that *barboka* had already been in use among them for at least some time. He writes: 'Les Créoles et les blancs de l'Amérique appelloient faire un *barboka*. . . .' It is quite natural to ascribe an Indian origin to the word since the French were in daily contact with the natives of the region. One might add that the word *barbacoa* never had in Mexico and San Salvador, as far as recorded evidence can show, the meaning of a social entertainment at which animals are roasted whole. The earliest American usage of the word registered in the Oxford English Dictionary occurs in Washington Irving's *Knickerbocker's History*, which was published in 1809. It must have been taken over by the early American settlers in the Mississippi valley, where it was already an old word among the French population.

J.-M. CARRIÈRE

above a fire meat that is to be smoked or dried.' The editors give two examples of the first acceptation of the word, one dating from 1697, and the other from 1879. They quote three examples where it means a wooden framework or a stage of sticks built over a fire on which the meat is laid, but they are all late nineteenth century examples, as they are taken from Im Thurn's *Indians of Guiana*, published in 1883.

⁵ According to the dictionary of the Spanish Academy (1914), *barbacoa* is used in Mexico. Several authorities, among others the *Espasa encyclopedia*, list it as being found both in Mexico and San Salvador.

NOTES AND PERSONALIA

THE FOURTEENTH ANNUAL MEETING OF THE LINGUISTIC SOCIETY OF AMERICA will be held at Chicago, December 27-8, 1937, jointly with the Modern Language Association of America, which meets on December 28-30. Sessions will be held at The Drake, which will be the headquarters of both associations.

The American Philological Association will hold its meeting at Philadelphia on December 28-30, and it will be possible for members of the LINGUISTIC SOCIETY to leave Chicago on the evening of December 28, after the close of the Society's sessions, and arrive in Philadelphia in the afternoon of the next day. There will be one joint session of the LINGUISTIC SOCIETY with the Philological Association in Philadelphia on the afternoon of December 30.

An informal gathering of members of the LINGUISTIC SOCIETY will also be held at Philadelphia on the morning of December 30, if there should be a request for such a gathering made by those who cannot go to the Chicago meeting.

THE LINGUISTIC INSTITUTE will again be a feature of the Summer Session of the University of Michigan. Several distinguished scholars from other institutions have accepted invitations to conduct courses, supplementing the regular staff of the University. Details can be secured from Prof. C. C. Fries, Director of the Linguistic Institute, Angell Hall, University of Michigan, Ann Arbor, Mich.

THE HONORARY MEMBERS elected at the Chicago meeting have accepted membership. The following extracts come from their letters:

Zollikon-Zurich, January 23, 1937: Your kind letter, telling me of my election to Honorary Membership in the LINGUISTIC SOCIETY OF AMERICA, has given me real pleasure. You have conferred a great honour upon me. It also means a gain for me; for it will enable me to collaborate and get in touch with American colleagues, and it will give me the opportunity of getting to know more closely the prominent scholars whose work I have known for a long time through reading the linguistic periodicals. Please convey therefore my warmest thanks to the Executive Committee and the Society, and accept my best wishes

for the successful furthering of your scientific work, such as the wonderful Linguistic Atlas of America.—J. Jud.

Göteborg, 18-i-1937: I have just received your kind letter of Jan. 4th, and wish to tell you how extremely glad and grateful I am to have received the great honour of becoming an Honorary Member of the LINGUISTIC SOCIETY OF AMERICA. I beg you to convey to the Society and its Executive Committee my hearty and respectful thanks.—B. Karlgren.

Vienna, January 21st, 1937: I thank you so much for your kind letter. I am certainly very happy to accept Honorary Membership in the Linguistic Society of America, and I am very grateful indeed for the honor the Society has conferred upon me by this election. For all these years I have been following with the greatest interest and sympathy the activities of the LINGUISTIC SOCIETY, and I have never missed reading its publications, which I always found extremely interesting and of the greatest importance for the progress of our science. The growth and the development of Linguistics in the United States is really quite amazing, and as the LINGUISTIC SOCIETY is beyond all doubt the most important factor in this development, I feel the more flattered to be its Honorary Member.—N. Trubetzkoy.

SAMUEL ELIOT BASSETT, Professor of the Greek Language and Literature at the University of Vermont, and a member of the LINGUISTIC SOCIETY OF AMERICA since 1927, died suddenly at his home in Burlington, Vt., on December 21, 1936, in his sixty-fourth year.

He was born at Wilton, Conn., on August 11, 1873, and received the degree of A.B. from Yale University in 1898, and that of Ph.D. in 1905, having studied also at Berlin, Freiburg, and Athens in the interim. He was Instructor in Greek at Yale University 1902-3, and Tutor in Greek 1903-5; he was then called to the University of Vermont in the position which he held until his death. In the summers of 1913 and 1914 he lectured on Greek and archaeology at Columbia University; in 1931-2 he was Visiting Professor at the American School of Classical Studies in Athens. With this school his relations had been long and intimate: he was a student there in the winters of 1900-1 and 1901-2, he was a member of its managing committees from 1905 on, and the chairman of its committee on fellowship since 1919. He was a member of many learned societies, and was President of the American Philological Association in 1923-4. At the time of his death he was serving the LINGUISTIC SOCIETY as a member of its Executive Committee.

His scholarly interests may be seen in his published articles, which are scattered through the classical journals of the United States and England. During his student years abroad he became interested in Greek lamps, on which he became an authority; in later years he devoted himself to the style, meter, and composition of the Homeric poems, in connection with which he was a unitarian. At the time of his death he was looking forward to a sojourn at Berkeley, where he was to deliver the Sather Lectures at the University of California. His departure for the West was planned for December 23.

He had delayed his college course to await complete recovery of strength after an attack of pneumonia when he was sixteen years old; yet at Yale he easily led his class. In 1907-8 he suffered another severe illness, and in 1915 he was attacked by a chronic malady which for many years was held in check, but finally overcame him. His courageous fight against ill-health, and his refusal to let his physical frailties interfere with his duties to his institution, were outstanding traits of his character.

But more than this, the sweetness and loveliness of his nature endeared him to all with whom he came into intimate contact. Kindly, generous, appreciative, always helping others, he defies portrayal to those who did not know him. I myself have known him since November of 1900; I have many tender memories of him which rise to the surface when I realize that he is no more with us. Of all these, perhaps, one may be told without violation of confidence, as a beacon to others: 'Ah, Roland,' he said, 'isn't it a fine feeling when you can let another younger man take the credit for something that you have jointly done, and don't have to worry about getting credit for yourself?' And this, to me, epitomizes Sam Bassett's attitude toward life.

ROLAND G. KENT

A COMMITTEE ON A SOCIETY FOR AMERICAN INDIAN LINGUISTICS has been appointed by the President of the LINGUISTIC SOCIETY, consisting of Professor Franz Boas, Chairman, and L. Bloomfield, H. Hoijer, R. G. Kent, J. A. Mason, S. Newman, E. Sapir, M. Swadesh, C. Voegelin, B. L. Whorf. The formation of such a society is considered by the Americanists as possibly the best method of securing records of the remaining unrecorded native American languages, and of obtaining support for publication. A similar committee with Professor Sapir as Chairman has been appointed by the American Anthropological Association. With the cooperation of the American Council of Learned

Societies, a joint meeting of the two committees will shortly be held, if indeed it has not already been held when this issue of *LANGUAGE* is distributed.

A SPECIAL PUBLICATION OF THE LINGUISTIC SOCIETY was issued in February, 1937: *A Census of French and Provençal Dialect Dictionaries in American Libraries*, by G. C. S. Adams and C. M. Woodard, with the cooperation of U. T. Holmes. It is in the form of a finding-list, arranged by the numbers in von Wartburg's *Bibliographie des Dictionnaires Patois*, to which about 200 items are added; with this brochure, the scholar can locate any work known to be available in an American library. Self-cover, 17 pages; price 50 cents (40 cents to members of the Linguistic Society), postpaid if remittance accompanies order, which should be sent to Linguistic Society of America, care of Prof. R. G. Kent, Bennett Hall, University of Pennsylvania, Philadelphia, Pa.; stamps accepted in payment.

THE UNIVERSITY OF CALIFORNIA, with the cooperation of the Institute of Pacific Relations, will in 1937 conduct courses in the Russian Language as part of its Summer Session. The project is a continuation of that which was conducted at California in the summer of 1936, at Columbia in the summer of 1935, and at Harvard in the preceding summer. One course is for beginners, the other for more advanced students; both are aimed at securing practical facility in reading and to some degree in speaking the language. Registration is restricted to a limited number of serious students. Information may be secured from Professor George Z. Patrick, University of California, Berkeley, Calif.

THE ROMANIC REVIEW, now at the beginning of its twenty-eighth year, is undergoing a reorganization. Professor John L. Gerig has resigned as Editor, but will continue to act in an advisory capacity. Under the general editorship of Professor Horatio E. Smith, the Review will become the publication of the Department of Romance Languages of Columbia University; the business management will be in the hands of the publishers, the Columbia University Press.

DIE GESELLSCHAFT FÜR PHONETIK (address: Berlin-Buch, Deutsches Spracharchiv) was founded in October 1936. It proposes, beginning with 1937, to combine two journals, *Medizinisch-pädagogische Monatschrift für Stimm- und Sprachheilkunde* (founded 1891) and *Vox* (founded 1913, now discontinued), into one publication to be known as *Archiv für die gesamte Phonetik*, which will appear in two sections, each

quarterly. The first section, entitled *Archiv für vergleichende Phonetik*, will not only comprise the whole domain of linguistic phonetics, but also include research work on speech that is based on statistics, physics, physiology, and psychology, so far as it contributes to the comparative study of languages. The editor is Professor E. Zwirner, who has the cooperation of an international group of scholars, among them our member Professor M. L. Hanley of the University of Wisconsin.

The second section, *Archiv für Stimm- und Sprachheilkunde*, will deal with the entire work of medical research in this sphere, as well as with the study of the phenomena of language.

Members of the *Gesellschaft* may secure either or both of these journals at a reduced price.

DR. P. S. COSTAS has gone to Whitman College, Walla Walla, Wash., in the Department of Classics.

DR. ROBERT A. HALL, JR. has gone to the University of Puerto Rico as Assistant Professor of Foreign Languages.

MARGARET C. HERR received the degree of Ph.D. from the University of Pennsylvania in February, 1937; her doctoral dissertation, *The Additional Short Syllables in Ovid*, is being published by the Linguistic Society.

RALPH L. WARD has received the degree of Ph.D. from Yale University, where he is now Instructor in Classics.

MR. B. L. WHORF is Honorary Fellow in Anthropology at Yale University for the academic year 1936-7.

THE FOLLOWING NEW MEMBERS FOR 1937 were received into the Linguistic Society subsequent to the last published list, and up to February 27, 1937:

William M. Austin, A.B., University Fellow in Oriental Languages, Princeton University; 1-A Graduate College, Princeton, N. J.; *Hittite, Indo-European*.

C. Douglas Chrétien, Ph.D., Instructor in Public Speaking, University of California; Faculty Club, Berkeley, Calif.; Germanic.

Lawrence B. Cohen, B.A., graduate student in Semitic Languages, University of Pennsylvania; 5637 N. Warnock St., Philadelphia, Pa.

Lionel Cohen, M.A., Assistant Instructor in Classics, New York University; 975 Mansfield Place, Brooklyn, N. Y.

- Richard P. Hickey, Ph.D., Head of Division of Literature and Languages, Rockhurst College; 1307 Brush Creek Blvd., Kansas City, Mo.; *English*.
- Haruo Hosaka, Tokyo-Furitsu-Dai-7-Kotojogakko, Sakasai Itchome, Edogawa-Ku, Tokyo, Japan.
- Edmund Ludwig King, M.A., Instructor in Modern Languages, Mississippi State College, State College, Miss.; *Spanish*.
- George J. Metcalf, Ph.D., Instructor in German, University of Alabama; Box 1462, University, Ala.
- Kenneth L. Pike, Th.B., investigator of Mixteco language, University of Mexico; Apartado Postal No. 1373, Mexico, D. F., Mexico; *American Indian Languages*.
- Peral Segal, 4755 N. Camac St., Philadelphia, Pa.
- Sister M. Anne Stanislaus, S.S.J., Ph.D., Teacher of Latin and Greek, Mt. St. Joseph College, Chestnut Hill, Philadelphia, Pa.
- Samuel Sloan, M.A., Teacher of Hebrew, Temple Beth-El, Highland Ave. and Beech St., Birmingham, Ala.; *Germanic*.
- Louis Francis Solano, Ph.D., Instructor in Romance Languages and Literatures, Harvard University; 377 Washington St., Somerville, Mass.; *general linguistics*.
- Leo Spitzer, Ph.D., Professor of Romance Philology, The Johns Hopkins University, Baltimore, Md.
- Leroy Waterman, Ph.D., Professor of Semitics, University of Michigan, Ann Arbor, Mich.; *Assyriology*.
- George Watson, M.A., Assistant Professor of English, and Associate Editor of the Dictionary of American English, University of Chicago; Box 248, Faculty Exchange, Chicago, Ill.; *American English, Scottish*.
- Henry B. Woolf, Ph.D., Instructor in English, Louisiana State University; Box 562, University Station, Baton Rouge, La.

BOOKS RECEIVED

Under this heading will be acknowledged such works as seem to bear on the advancement of the scientific study of language.

The publicity thus given is regarded as a full return for the presentation of the work. Under no circumstances is it possible to comply with the requests being made by certain publishers for the return of books not reviewed quickly.

Reviews will be published as circumstances permit. Copies of them will be sent to the publishers of the works reviewed.

For further bibliographic information consult the annual list of Exchanges.

Acta Philologica Scandinavica 11. 1-192 (1936).

Aegyptus 16. 1-224 (1936).

American Speech 11. 107-376, 12. 1-84 (1936-37).

Annals of the Bhandarkar Oriental Research Institute, Poona 17. 1-317 (1935-6); 18.1-96 (1936-7).

L'Antiquité Classique 5. 1-496 (1936).

Anthropos 31. 341-1031 (1936).

Archiv für das Studium der neueren Sprachen 169. 1-320; 170. 1-160 (1936).

Archiv für Orientforschung 11. 1-190 (1936).

Arkiv för Nordisk Filologi 52. 1-393 (1936).

Die Beobachtungen des Sprachmeisters James Elphinston über die schottische Mundart (1787). Pp. viii + 77. By KURT-GÜNTNER DOROW. Weimar: R. Wagner Sohn, 1935.

Bernard Shaw's Phonetics; a Comparative Study of Cockney Sound-changes. Pp. 86. By JOSEPH SAXE. Copenhagen: Levin & Munksgaard, 1936.

Biblica 17. 273-524, 49*-130* (1936).

Bibliografia Filológica Portuguesa. Nos. 1-250. JUNTA DE EDUCAÇÃO NACIONAL. Lisbon, 1935.

Biblos 11. 1-304 (1935).

Boletim de Filologia 4. 1-220 (1936).

Bolletino delle Pubblicazioni Italiane Nos. 415-22 (1936); Index for 1935.

Bulletin Hispanique 38. 1-560 (1936).

Bulletin Linguistique 4. 1-205 (1936).

The Bulletin of the Institute for Research in English Teaching Nos. 123-30 (Tokyo, 1936-7).

Contributions à la Critique et à l'Explication des Gloses de Reichenace. Pp. ix + 107. By ANDRÉ LABHARDT. Neuchâtel, 1936.

Emerita 4. 1-208 (1936).

Englische Studien 71. 1-320 (1936).

English Studies 18. 97-288 (1936).

Études de Grammaire Sanskrite. Pp. 146. By LOUIS RENOU. Paris: Adrien-Maisonneuve, 1936.

Die eurasische Sprachfamilie. Pp. viii + 220. By HEINRICH KOPPELMANN. Heidelberg: Carl Winters Universitäts-buchhandlung, 1933.

Filologu Biedrības 16. 1-167 (1936).

Folkmarksstudier 3. 1-433 (1935).

The Foundations of Roman Italy. Pp. xix + 420. By JOSHUA WHATMOUGH. London: Methuen & Co., 1937.

Geschichte und Kritik der wichtigsten Satzdefinitionen. Pp. 144. By EUGEN SEIDEL. Jena: Verlag der Frommannschen Buchhandlung, 193. (Jenaer Germanistische Forschungen 27.)

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THE DISTRIBUTION OF THE NASAL-INFIXING PRESENTS

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An examination of the verbal forms derived from Indo-European roots with the gradations *ei/i* and *eu/u* (and sometimes *ai/i*) and ending in stops will show many thematic present stems with the strong grade of the radical vowel¹ and not a few others characterized by a nasal infix in the root². The nasal type is well represented in Latin and Lithuanian, and also in some of the Sanskrit verbs belonging to that class called by the Indian grammarians the sixth (e.g., *muñcāti*, *limpāti*). The seventh Skt. class³ is not with any certainty represented outside of the Aryan group, and its relation to the thematic type is disputed, but it is made principally from roots of the phonetic pattern described, and must receive due consideration. The Greek forms of the type *λιμπάνω* will be discussed later.

The following table, based on Walde-Pokorny⁴, shows the distribution of nasal and non-nasal presents from the principal roots in question, and includes some other verbal forms, belonging chiefly to the classes called in the Indian terminology second, fourth, and fifth. The Aryan examples are from Sanskrit, the Germanic from Gothic, and the Baltic from Lithuanian, unless otherwise designated. Present forms with the nasal infix are given in italics in order to give a clearer impression of the distribution of the forms.

The most notable fact shown by the table is the almost complete absence of nasal present stems in Germanic. The rest of the material shows nasal presents made from the majority of the roots but scattered about in an irregular fashion from which it appears impossible to draw any definite conclusions. The purpose of this article is to throw some light on what must originally have been the extent of the two classes,

¹ Brugmann, *Grundriss der vergleichenden Grammatik der indogermanischen Sprachen*² (Strassburg, 1897-1916) 2.3.113 f., 118.

² Brugmann, *Grundriss* 2.3.279 ff.

³ Brugmann, *Grundriss* 2.3.276 ff.

⁴ *Vergleichendes Wörterbuch der indogermanischen Sprachen*, Berlin & Leipzig, 1930.

IE root	Aryan	Greek	Latin	Germanic	Baltic	Other languages
ai-dh-	<i>inddhé</i>	<i>αἶθω</i>				
3 jeu-g-	<i>yundākti</i> <i>yunājāti</i>	<i>ζεύγνυμι</i>	<i>jungo</i>		<i>jūngiu</i> ⁶	
jeudh-	<i>yódhati</i>		<i>jubeo</i>		<i>judù</i> <i>jundù</i>	
2 ŷeiq-			<i>vinco</i>	<i>weiha</i> n	<i>veikiù</i>	Olr. <i>fichim</i>
2 ŷeid-	<i>vindāti</i>	<i>ἰνδάλλομαι</i>				Olr. <i>finnaim</i> Arm. <i>giut</i> ⁶
k̃ŷeit-	[<i>śvetate</i>]				<i>švintù</i>	
gheigh-	<i>jéhamāna</i>			<i>faihu-geigan</i> <i>ga-geigan</i> OHG <i>gingen</i>		
ġheu- ġheud-	<i>juhóti</i>	<i>χέω</i>	<i>fundo</i>	<i>giuta</i> n		
teiq-				OHG <i>dingan</i>	<i>tikiù</i>	
deik-	<i>disāti</i>	<i>δεῖκνυμι</i>	<i>dīco</i>	<i>ga-teiha</i> n OHG <i>zīhan</i>		
deuk-		<i>δεύκει</i> ⁷	<i>dūco</i>	<i>tiuha</i> n		
dheigh-	<i>degdhi</i>	<i>θιγγάνω</i>	<i>fin̄go</i>	<i>partic.</i> <i>digandin</i>	<i>dižu</i>	OIr. <i>dingim</i> Arm. <i>diza-</i> <i>nem</i>
dheugh-		<i>τεύχω</i> <i>τυγχάνω</i>		OIcel. <i>duga</i> Goth. <i>pret.</i> <i>pres. daug</i>		
peig- peik-	[<i>piñkle</i>] <i>piñsāti</i>		<i>pingo</i>		<i>pēšiù</i>	
bheid-	<i>bhindt̃ti</i>	<i>φείδομαι</i> ⁸	<i>findo</i>	<i>beita</i> n		
bheidh-		<i>πεῖθω</i>	<i>fido</i>	<i>beida</i> n		Alb. <i>bint</i>
1 bheug- 3 bheug- (h)-	<i>bhujāti</i>	<i>φεύγω</i> <i>φυγγάνω</i>	<i>fugio</i>	<i>biuga</i> n	<i>búgstu</i>	

⁵ With extension of nasal infix to non-present forms, and transfer to -ju-type.

⁶ From **gint*. Brugmann, Grundriss 1.357, 523.

⁷ *δεύκει· φροντίζει* Hesychius.

⁸ Connection of *φείδομαι* with √ *bheid*- denied by Boisacq, Dictionnaire étymologique de la langue grecque, Heidelberg-Paris, 1916. Derivation from √ *bhei*- 'fear' suggested by Fick, KZ 41.201, and by Wood, Cl. Phil. 3.79.

IE root	Aryan	Greek	Latin	Germanic	Baltic	Other languages
2 bheug-(h)- ⁹	Avest. <i>bunjain̥ti</i> Pali <i>pari-bhuñjati</i>		<i>fungor</i>			
bheudh-	bódhati	πέθομαι πυνθάνομαι		ana-biudan OEng. <i>bēodan</i> OHG <i>biotan</i>	<i>bundū</i>	
meiĝh-	méhati	δμείχω	<i>mingo</i>	OIcel. <i>mīga</i> OEng. <i>mīgan</i>	<i>męžū</i> ¹⁰	
meuq- meug-}	<i>muñcāti</i>	ἀπο-μύσσω	<i>e-mungo</i>		<i>munkū</i>	
2 reu-k-	[<i>luñcati</i>]	δρύσσω	<i>runco</i> , -are		<i>runkū</i> ?	
2 reu-p-	<i>lumpāti</i>		<i>rumpo</i>	OEng. <i>rēofan</i>		
1 leiḡ-	<i>riṇákti</i>	λείπω λιμπάνω	<i>linguo</i>	leihvan OHG <i>lihan</i> OEng. <i>lēon</i>	<i>lėkū</i> OLith. <i>palinkt</i> OPruss. <i>polinka</i>	OIr. <i>leicim</i> ¹¹ Arm. <i>lk-</i> 'anem
leiĝh-	leḡhi	λείχω	<i>lingo</i>	bi-laigōn	<i>lēžiū</i>	OIr. <i>ligim</i>
1 leip-	<i>limpāti</i>	ἀλείφω		bi-leiban	<i>limpū</i>	OChSl. <i>lɛn q</i>
seik-	<i>sécate</i> <i>siñcāti</i>			OHG <i>sihan</i> OEng. <i>sēon</i>		
sqēi-d-	<i>chindāti</i>	σχίζω	<i>scindo</i>	OHG <i>scīzan</i> OEng. <i>scītan</i>	<i>skiedziū</i>	
steig-	tējate	στίζω	in-stīgo <i>stinguo</i>	OEng. <i>stic-</i> chen	<i>stingū</i>	
steigh-	stighnoti	στείχω		steigan	steigiúo-s	OIr. <i>tiagu</i> OChSl. <i>stigna q</i>
(s)teu-d-	<i>tundate</i> <i>tudāti</i>		<i>tundo</i>	stautan OSax. <i>stōtan</i> OHG <i>stōzan</i>		
sneigh-	Avest. <i>snaēženti</i>	νείφει	<i>ninguit</i> <i>nīvit</i> ¹²	OHG } snī- OEng. } wan	<i>sniñga</i> dial. <i>snēga</i>	OIr. <i>snigid</i>

⁹ Walde-Pokorny, on semantic grounds, deny connection of Skt. *bhunākti*, *bhuñjati* with this root.

¹⁰ From **mįžū* by ablaut-transfer. Cf. Leskien, *Der Ablaut der Wurzelsilben im Litauischen* 279, Leipzig, 1884.

¹¹ From the nasalised form of the root. Cf. Pedersen, *Vergleichende Grammatik der keltischen Sprachen*, 1.130, 152; 2.565, Göttingen, 1909-1913.

¹² Pacuvius apud Nonius 507: 28.

and, if the classes overlapped, to discover the original difference in meaning by looking for possible differences of meaning preserved in the languages actually known. Delbrück,¹³ treating the verbs of the Sanskrit Classes V, VI (of the type *muñcāti*), VII, and IX (which appear not to differ among themselves in meaning) and their Greek cognates,¹⁴ says: 'Thre Aktion ist terminativ. Sie unterscheidet sich also von der vorigen (the cursive *-iō*-presents) dadurch, dass ein Ausgangs- oder Endpunkt in's Auge gefasst ist, von der punktuellen dadurch, dass die Handlung zugleich als vor sich gehend dargestellt ist.' I shall now examine some of the verbs given in the table, in the hope of discovering some difference of meaning in cases where the same language or different languages make both formations from the same root. My practise is,

¹³ Vergleichende Syntax der Indogermanischen Sprachen 2.40 ff., Strassburg, 1897.

¹⁴ The assumption that the Greek type represented by *τυγχάνω*, *λιμπάνω*, etc., was derived from the IE infix-class was attacked by Thurneysen, IF 4.78 ff., on the ground of the infrequency or total absence of most of these verbs in the Homeric poems. He suggested that these nasal presents were made after their second aorists on the basis of the relation between *χανδάνω* (for **χενδάνω*) and *ἐχαδον*, together with certain other such correspondences in verbs where nasal and non-nasal forms stand in a disguised ablaut relation to one another. The weakness of Thurneysen's argument, as shown in Brugmann-Thumb, Griech. Gram. 337 (München, 1913), is the fact that most of the forms of verbs of the type *τυγχάνω* are metrically unfit for use in epic verse. Actually the examples are limited to the present and imperfect indicative first singular and third singular and plural, all of which are forms with dactylic ending (the final diphthong being shortened before a vowel in *ἀνδάνει* β 114 and *ἀφανδάνει* π 387) except the choriambic forms *πυνθάνομαι* β 315 and *πυνθανόμην* ν 256. The best explanation of the type in question appears to me to be that mentioned by Buck, Comparative Grammar of Greek and Latin 263 (Chicago, 1933), according to which a form with an infix has been combined with a form having the suffix *-αν°/ε*. The first form is of course the familiar type seen in Lat. *linguo*, while the second is perhaps paralleled in Arm. *lk'-anem* (root *leiqm-*), *liz-anem* (root *leigh-*), *diz-anem* (root *dheigh-*), and shows close resemblance to *ἀμαρτάνω*, *αἰσθάνομαι*, etc. The substitution of *ἐλιμπανον* for **ἐλιπανον* would be favored by the same tendency which led to the replacement of the proceleusmatic **σοφότερος* by *σοφώτερος*, and which may possibly explain the long vowel after the Attic reduplication in perfect forms like *ἐλήλυθα*. The relation *τυγχάνω* : *ἐτυχον*, *λιμπάνω* : *ἐλιπον* may then have served as a pattern for the change **χενδάνω* > *χανδάνω* beside *ἐχαδον*. In some of the Greek verbs which form both nasal and non-nasal present stems there is some evidence of semantic difference between the two stems, and this difference will be discussed; but it is not always in line with the specialization of meaning shown in the IE nasal presents by Delbrück, loc. cit., and this fact, together with the doubts raised against the antiquity of the *λιμπάνω*-type by Thurneysen, makes me unwilling to regard such forms in Greek as strong evidence for their existence in IE.

where possible, to give only those examples containing uncompound verbal forms, since prepositional prefixes have a well-known tendency to alter the aspect of the verbs.

Root *ai-dh-*. The usual sense of Skt. *inddhé* is 'kindle', an action of the type described by Delbrück as terminative. This use is well illustrated in Rig-Veda 10, 69.1, *yád īṇi sumitrá vīṣo ágra indháte* 'if once the Sumitras kindle him (Agni); cf. 8.43.27; 6.2.3; 3.13.5. Now Greek *αἶθω* is never used outside of the present system and is not found in the active voice before Pind., Ol. 7.48 *αἰθοίσας . . . σπέρμα . . . φλογός*.¹⁵ Here and in Soph. Aj. 286 *λαμπτήρες οὐκέτ' ἦθον* the sense is intransitive, but the active forms have generally a personal subject and an object signifying 'fire, lamp, sacrifice', etc. The meaning is not 'kindle', for which forms of *ἄπτω* generally serve, but 'burn, keep burning'. The durative notion appears clearly in some cases, as in Eur. Rhes. 41 f. *πύρ' αἶθει στρατὸς Ἀργόλας, / Ἑκτορ, πᾶσαν ἄν' ὄρφναν, 95 αἶθουσι πᾶσαν νύκτα λαμπάδας πυρός*. Of the middle voice no form except the participle is found in Homer, who uses it with *πῦρ* (14 examples), *δαῖδες* (3), *δαλός* (1), *λαμπτήρες* (1), *ἱερά* (2), and with *ἄστυ* in Φ 522 f. *ὥς δ' ὅτε καπνὸς ἰὼν εἰς οὐρανὸν εὐρὺν ἱκνέται / ἄστεος αἰθομένοιο*. In the sense 'kindle' Homer uses *αἶω* (ε 490), *δαίω* (I 211) and in the sense 'catch fire' *ἄπτομαι* (ι 379). In each case forms of *αἶθω* (or of *αἶθομαι* in ι 379) might have been used without injury to the metre. In connection with the difference of aspect between Skt. *inddhé* and Gr. *αἶθω* it is interesting to observe that *inddhé* is frequently compounded, particularly with *sam-*, and *αἶθω* very rarely.

Root *ṛeu-* in its extended form *ṛeug-*. The usual Sanskrit present is *yunákti*. The thematic nasal form *yuñjáti* occurs first in Śvetāsvataraopaniṣad 2.6, and the forms *yóṣā* (RV 1.82.1-5), *yojam* (RV 2.18.3), and *yojate* (RV 7.16.2), treated as presents by Grassmann,¹⁶ are taken by Whitney¹⁷ and Macdonnell¹⁸ for subjunctive forms of the root-aorist. The only Rig-Vedic present forms apart from Class VII, then, are some forms of class II. The Greek present *ζεύγνυμι* is probably to be regarded as a transfer from the infixing class and illustrates the pronounced tendency of the language to make presents in *-νυμι* from roots ending in *γ* and possessing *σ*-aorists.¹⁹ The Latin and Lithuanian cognates have

¹⁵ *αἶθων* in Pind. Pyth. 3.58 may be the adjective *αἶθων*, *-ωνος*.

¹⁶ Wörterbuch zum Rigveda, Leipzig, 1873.

¹⁷ Roots of the Sanskrit Language, Leipzig, 1885.

¹⁸ A Vedic Grammar for Students, Oxford, 1916.

¹⁹ Cf. Thurneysen, IF 4.82.

extended the nasal infix into the non-present forms, and the Lith. verb has been transferred to the class ending in *-ju*, a fact possibly connected with the distribution of meanings in the Lith. present classes, among which the verbs in *-ju* are prevailingly transitive, but the nasal verbs intransitive-inchoative.²⁰ The various IE verbs derived from the root *yeug-* and meaning 'yoke, connect', are clearly of the type treated by Delbrück as terminative, and the similarity of aspect between 'bring into connection' and 'set on fire' is quite apparent. All the evidence seems to point to the probability that no present **yeugō* existed.

Root 2 *yeiq-*. OIr. *fichim*, Goth. *weihan*, both with the meaning 'fight', Lith. *veikiu* 'act, do'. Lat. *vinco* (with Osc. *vincter* 'vincitur') is the only nasal derivative of this root and the only one which, in the uncompounded form, means 'conquer'. Possibly the Italic present stem was inherited from an IE form with a nasal infix signifying the successful completion of the fighting, a type of act that conforms fairly well to Delbrück's description of the terminative aspect.

Root *yeid-*. The two Sanskrit roots *vid-*, represented by *vétti* and *vindāti*, are commonly referred to a single IE root *yeid-*, with the meaning 'see, catch sight of'. Nasal forms occur in several languages, with some indication of specialized meaning in the parent language. *ινδάλλομαι* (beside which Hesychius cites a form *ειδάλλομαι*) occurs four times in Homer (P 213, Ψ 460, γ 246, τ 224), with the meaning 'seem, appear', and the flashing of the impression across the person's vision is present in P 213 f. *ινδάλλετο δέ σφισι πᾶσι / τεύχεσι λαμπόμενος μεγαθύμου Πηλεΐωνος*. The verb seemed terminative to Delbrück, who treated it along with other verbs of this aspect and translated it 'zeige mich, erscheine'.²¹ But the theory that the nasalized form of the root had a specialized meaning involving the act of catching sight of an object is much better illustrated by Skt. *vindāti* and OIr. *finnaim*, both meaning 'find'. It is not out of place to mention also Arm. *giut* 'Gewinn', derived by some from *yeid-* on the basis of Hübschmann's theory,²² supported by Bugge,²³ that Arm. medial *n* > *u*. Though a noun and not a verb, *giut* shows a sense similar to that of *yeid-* in Skt. *vindāti*; but the etymology is not certain, since the phonetic law on which it depends is supported by only a few examples, and was denied by Bartholomae.²⁴

²⁰ Leskien, *Litauisches Lesebuch*, 192, 194, Heidelberg, 1919; Wiedemann, *Handbuch der Litauischen Sprache*, 115, 117, Strassburg, 1897.

²¹ Op. cit. 52.

²² *Armenische Studien* 1.26, 63, 75.

²³ IF 1.453.

²⁴ *Studien zur indogermanischen Sprachgeschichte* 2.37, Halle, 1890-1891.

Of the various non-nasal present stems from *yeid-* none can be set down for the parent language with the same certainty as the perfect represented by Skt. *véda*, Gr. *foīda*, Goth. *wait*. The thematic present *vedate* occurs first in Śvetāśvataropaniṣad 5.6 in the sense 'knows', and is paraphrased by the commentator as the equivalent of *vétti* or *jānāti*. Quite dissimilar in meaning is the Greek present *εἶδομαι* 'become visible, be visible' (Θ 559) or, with the dative, 'resemble, have the form of' (N 69; Hdt. 6.69; 7.56). The occurrence of the unthematic forms Skt. *vétti*, Lith. *veizdmi* (with *z* from imperative *veizdi* from **yeid-dhi*) suggests that a present of this type (Skt. Class II) may have existed in IE, perhaps with the meaning 'catch sight of, notice, observe', as in Skt., though Lith. *veizdmi* refers more to the voluntary act of looking.

Root *dheugh-*. In Walde-Pokorny the primitive meanings of this root are given as 'taugen, tüchtig sein, sich gut treffen, glücken', and the transitive meaning 'tauglich herrichten'. Greek shows both a nasal and a non-nasal present with a difference of meaning which has led to the treatment of the forms *τυγχάνω* and *τεύχω* as two separate verbs, each with its own aorist and perfect, and with an active future for the transitive *τεύχω* but a middle for the intransitive *τυγχάνω*. The aspect of *τεύχω* is durative or cursive: it signifies the process of making or contriving. So in A 110 *ὥς δὴ τοῦδ' ἐνεκά σφιν ἐκηβόλος ἄλγεα τεύχει*, or in the imperfect in Σ 372 f. *τὸν* (sc. *Ἡφαιστον*) *δ' εὖρ' ἰδρώοντα ἐλίσσόμενον περὶ φέσας / σπεύδοντα. τρίποδας γὰρ ἑέκοσι πάντας ἔτευχεν*. The same is true also of the participle in the familiar expression *κάμε τεύχων* (B 101, H 220, Θ 195, T 368). *τυγχάνω*, on the other hand, is not properly a durative verb. Its present and imperfect are, of course, frequently construed with present participles, much less commonly with aorist or perfect participles, but in such constructions I am inclined to regard *τυγχάνω* as an auxiliary verb, having no aspect of its own, but receiving one from the participle—usually a durative aspect, since the participle is usually present. As for the construction with the genitive case, it is much less common with the present and imperfect forms of *τυγχάνω* than with the aorist,²⁵ a fact which we may easily understand if we think how little of the durative notion is to be seen in the meanings 'get, acquire, happen to obtain'. Some of the present and imperfect indicative forms of *τυγχάνω* with the genitive are justified by

²⁵ The ratio of present-system forms with genitive to aorist forms with genitive in several selected authors is: Aeschylus 5 to 20 (excluding Ag. 1040, where *τυχεῖν* rests on emendation), Aristophanes 1 to 9, Lysias 16 to 23 with imperfect + genitive only once (12.20), but aorist indicative + genitive 6 times.

the need to signify repetition or habit. So in Theognis 253 αὐτὰρ ἐγὼν δλίγης παρὰ σεῦ ἐπιτυγχάνω αἰδοῦς, Aesch. Supp. 384 δίκας οὐ τυγχάνουσιν ἐννόμον, probably also in the unreal condition in Aesch. Ag. 866 καὶ τραυμάτων μὲν εἰ τόσων ἐτύγγανεν. Homer has the present τυγχάνω not at all and the imperfect only twice. In A 74 οἷη γὰρ ῥα θεῶν παρετύγγανε μαρναμένοισιν the participle παρεών is probably to be felt, while in ξ 231 καὶ μοι μάλα τύγγανε πολλά there is an iterative notion.

Root *peig-*, *peik-*. From the form with *g* comes Lat. *pingo*, from the other come Skt. *piñśāti*, Gr. *ποικίλος* and *πικρός*, and Lith. *pěšiù*. In Grassmann's Wörterbuch it is suggested that the general meaning 'adorn' developed from the meaning 'carve or scratch figures upon', which in turn developed from the meaning 'cut or carve' (e. g., pieces of meat from the whole mass, as in RV. 1.161.10). Gr. *πικρός* 'sharp, bitter', is interesting because of its close similarity to the earliest meaning. With regard to the type of action signified by the root it may be well to recall the roots *bheid-* and *sqēi-d-*, which both involve cutting and both make present stems with the nasal infix. The Lith. verb *pěšiù* 'write' is a transfer to the *-ju*-class, possibly for the reason suggested above in the case of *jūngiu*.

Root *bheid-*. The existence of the nasal forms Skt. *bhinātti* and Lat. *findo*, together with the nature of the action 'split', may be taken as good evidence of a nasal present in IE. With regard to Goth. *beitan*, OIcel. *bíta*, OSax., OEng. *bītan*, OHG *bīzan*, all meaning 'bite', attention may be called to the remark above on the extreme rarity in Germanic of nasal presents from roots of the type here in question. As for Gr. *φείδομαι*, its derivation from the root *bheid-* is uncertain (see the table).

Roots 1 *bheug-* and 3 *bheug(h)-*. Walde-Pokorny treat these roots as partly distinct, the first having the sense 'fliehen', the second 'biegen', but recognize the close relationship between them. From the first come Gr. *φεύγω*, *φυγγάνω*, Lat. *fugio*, Lith. *būgstu*; from the second Skt. *bhujāti*, Goth. *biugan*. There is no good evidence of a nasal present in IE, but there are clear signs of semantic difference between the two Greek presents. *φεύγω* (aside from its special meanings 'be in exile' or 'be prosecuted') means 'flee, take flight' (pres. ind. Θ 94, O 588, Π 422, Φ 472, ζ 199, ψ 120, impf. I 478, Φ 256, 542, X 158, γ 166 f.). Of these examples none has the meaning 'escape', and the same statement applies in the main to the forms of the present system found in the later literature. Of the other present *φυγγάνω* several examples deserve close attention. The present of habit used of recovering from diseases appears in Hippocrates, vol. VII., p. 194 (Littre) and, compounded with

ἐκ, p. 330. Cf. Heraclitus, fr. 86 (Diels) ἀλλὰ τῶν μὲν θείων τὰ πολλὰ, καθ' Ἡράκλειτον, ἀπιστίη διαφυγγάνει μὴ γιγνώσκεισθαι. The so-called prophetic present of *φυγγάνω* in the sense 'escape' is found in Aesch. Pr. 512 f. *μυρίαῖς δὲ πημοναῖς / δύαις τε λαμφθεῖς ὧδε δεσμὰ φυγγάνω*. 524 f. *τόνδε γὰρ (sc. λόγον) σφῶζων ἐγὼ / δεσμοὺς ἀεικέῖς καὶ δύας ἐκφυγγάνω*. In Soph. El. 131 f. *οἶδά τε καὶ ξυνίημι τάδ', οὐ τί με / φυγγάνει* the sense is 'escape my attention'. Of course one might argue that in those passages where *φυγγάνω* is compounded the sense 'escape' is given by the prefix, but from the other examples it is sufficiently apparent that this sense is contained in the nasal stem itself. My own belief is that *φυγγάνω* was made in order to provide a form signifying the same type of action as the aorist *ἐφυγον* but expressing present time (present of habit or of the type shown in Soph. El. 131 f. cited above, but not the progressive present with the conative notion found in *φεύγω*).

Root *bheudh-*. The present **bheudhō* is attested by Skt. *bódhati*, Gr. *πείθομαι* (with the active infinitive *πενθεν* in the Gortynian Law-Code²⁶) and Goth. *ana-biudan*, and it appears to have included both the meaning 'awake, become conscious, notice', and the meaning 'be awake, be conscious'; perhaps also the transitive meanings 'arouse, give notice', if we may judge by the evidence of the Germanic words and of Cretan *πενθεν* cited above. Between the Greek presents *πείθομαι* and *πυνθάνομαι* there are some indications of semantic difference. The usual meaning of *πείθομαι* is 'I know' (γ 87, 187; Mimnermus 13.2 Diehl; Pind. Pyth. 4.38; Aesch. Ch. 679), or 'I have just learned' (Aesch. Ag. 987, Ch. 763, 839); imperfect *ἐπενθόμην* (I 524, Δ 21, 498, δ 677, π 411 f.) 'knew, had learned'. The meaning 'inquire' is not found at all in Homer, and only a few examples can be quoted from later poetry (Aesch. Ag. 617, Ch. 850; Soph. O. T. 604, Tr. 387; Eur. I. A. 1138, Theocr. 12.37). Both Sophoclean passages have imperative *πείθου* at the beginning of trimeters, the reading in both cases supported by Codex Laurentianus, but in each passage Schneidewin-Nauck read *πυθοῦ*, which indeed has some manuscript authority in O. T. 604. The nasal present *πυνθάνομαι* with its imperfect has sometimes the meanings 'learn, know' (ν 256; Aesch. Pr. 744, Ch. 370; Hdt. 7.101; Ar. Eq. 1302, and always in Thuc.), sometimes the conative meaning 'inquire, try to learn' (Aesch. Ch. 848; Soph. O. C. 993, 1155; Ar. Ach. 204, Thes. 619, Eccl. 230, Pl. 25, 963, ἐκ- 60). My impression is that *πείθομαι* had primarily the perfect meaning 'I know, I have just learned', while *πυνθάνομαι* served largely as a conative present to the aorist *ἐπυνθόμην*; but this distinction was

²⁶ SGDI 4991.8.55.

far from universal, and the distribution of the two forms was partly a matter of poetic and prose usage, while the meaning of *πυνθάνομαι* may have depended on the author's taste; certainly the contrast between Thucydides and Aristophanes in this matter is striking. As for the existence of a nasal-infixing present from *bheudh-* in IE, the only example outside of Greek is Lithuanian *bundù*. The uncertain origin of the Greek nasal class and the extensive spread of this class in Lithuanian make it unsafe to assert the existence of such a form in the parent speech.

Root *leiq^u-*. There can be no doubt that the nasal and the non-nasal presents of this root both existed in the parent speech, the former being attested by Skt. *riṇakti*, Avest. *irinaχti*, Lat *linquo*, OIr. *leicim*²⁷, OLith. *pa-linkt*, OPruss. *po-linka*, the latter by Gr. *λείπω*, Goth. *leihvan*, OHG *līhan*, OEng. *lēon*, Lith. *lėkù*. If the two stems had any difference of meaning, however, it must have been effaced at an early period, with most of the languages showing one or the other stem, in the sense 'leave, abandon, let go', etc. Gr. *λαμβάνω*, if it is an IE inheritance at all, is rare in the early authors, less common in the simple form than in composition, and does not differ appreciably in meaning from *λείπω*. OLith. *pa-linkt* and OPruss. *po-linka*, both meaning 'he remains', are interesting as illustrations of the intransitive meaning prevailing in the Baltic nasal class, but a comparison of them with *lėkù* proves nothing for IE.

Root *leigh-*. Skt. *leḍhi*, Gr. *λείχω*, Lat. *lingo*, OIr. *ligim*, Lith. *lėžiù*. In the face of such disagreement among the present stems of the known languages it would be unsafe to point to any of these stems as the original. We may assume that there was an unthematic stem represented by Skt. *leḍhi*, which was transferred to thematic classes in the other languages; or we may assume that an IE **leighō* was transferred in Sanskrit to the second class, perhaps under the influence of *ḍlti*, a verb of related meaning. Lat. *lingo* does not prove the existence of a nasal-infixing present in IE, though Gr. *λιχνέω*, *λιχνάομαι* (Hesychius), and certain Germanic words point to the existence of IE forms with nasal suffixes.

Root *seik-*. The usual Skt. present is *siñcāti*, and the aspect is terminative, the completion of the act of pouring being often in view. The compounded forms of the present stem, as given by Grassmann, are to the uncompounded in the ratio of 28 to 11, and most of the passages when translated into German require compound verbs. There is, however, one passage, RV. 10.96.1, which deserves special notice: *ghṛtām ná*

²⁷ See above in the table.

yó háribhiś cāru sēcate 'who flows like lovely butter in golden [drops]. In the absence of other examples of this stem in the Rig-Veda and, as far as I know, in the later literature, it is unsafe to draw positive conclusions, but this form appears to have more of the cursive and less of the terminative aspect than most of the examples of the nasal stem.

Root *sqēi-d-*. Skt. *chinātti*, Lat. *scindo*, and the Gr. noun *σχινδαλμός* give good evidence for the existence in IE of a nasalised root-form *squind-*, from which must have been made a present stem of meaning and aspect similar to that of Skt. *bhinātti*.

Root *steig-*. The divergence among the languages in the formation of present stems is too great to permit of our designating any stem as belonging with certainty to the parent speech; nor can much be said with regard to meanings except that both transitive and intransitive meanings are fairly widely distributed. Leaving out of account the Skt. form *tejate*, found in RV 10.138.5 in the sense 'sharpen', the meanings can mostly be classified under (tr.) 'prick' (aspect either punctual or iterative) and (intr.) 'remain stuck' (aspect durative). Gr. *στίζω* and MEng. *sticchen* may possibly reflect an IE *stigio*, but both may have developed independently. For the existence of a nasal present in IE there is no proof. Goth. *stingqan*, connected by Brugmann in the older edition²⁸ with this root, is in the later edition²⁹ and by Walde-Pokorny derived from the root *steu-g-* on the assumption of an ablaut-transfer. Lat. *stinguo*, which according to Walde-Pokorny received *-gu-* for *-g-* after *unguo*, may perhaps have received its nasal from the same source; and Lith. *stingu* 'remain fixed', may be merely another instance of the extension of the nasal class among verbs of intransitive meaning.

Root *steigh-*. Gr. *στέλω* is clearly a verb of durative or cursive aspect, occurring chiefly in uncompounded forms of the present system; and the same aspect appears to characterize OIr. *tiagu* and Lith. *steigiuo-s* (the latter, of course, a transfer to the *-ǵō*-type. I have not found it in the dictionaries of Kurschat³⁰ and Lalis³¹, but Walde-Pokorny report it, with the translation 'hastig sein, sich beeilen, sich bemühen'). In Gothic the uncompounded form *steigan* is found but once³², with the aspect not very clearly defined, but it is well to notice that in this

²⁸ Grundriss der vergleichenden Grammatik der indogermanischen Sprachen 2.995, Strassburg, 1886-1900.

²⁹ Grundriss, 2.3.1. 284.

³⁰ Litauisch-Deutsches Wörterbuch, Halle, 1883.

³¹ A Dictionary of the Lithuanian and English Languages, Chicago, 1915.

³² St. John 10. 1 *saei inn ni atgaggiþ þairh daur ... ak steigiþ aljaþro* = ὁ μὴ εἰσερχόμενος διὰ τῆς θύρας ... ἀλλὰ ἀναβαίνων ἀλλαχόθεν.

passage *steigip* translates a Greek present participle and to remember the durative character of Modern German *steigen* as contrasted with *ersteigen*.

The root *steigh-* produces no present with a nasal infix in any IE language, but it is interesting that the two forms with nasal suffixes, Skt. *stighnoti*³³ and OChSl. *stignati*³⁴ both designate the attainment of the goal. There is, however, no reason to believe that a nasal form existed in IE. Aside from the fact that the Slavic nasal class has been greatly enlarged by new members, this class is not to be identified with the fifth Skt. class, but rather with the ninth.

Root. *sneigh*^h. The existence of the present form **sneigh^heti* is shown by Avest. *snaēžēnti* (partic. pres., loc. sing.), Gr. *velpei*, Lat. *nīvit*, OHG, OEng. *snīwan*, and Lith. dialectic *snēga*. The usual Lat. *ninguit* and Lith. *snīnga* may easily reflect a proethnic nasal form, especially since there is no apparent reason, semantic or other, for the independent formation of the nasal type in the two languages; but here we are on uncertain ground. The form *sneigh^heti* is supported by more of the known languages, and moreover the type of action designated is foreign to that generally associated with the nasal forms.

The verbs discussed in the preceding paragraphs are only a minority of those listed in the table, but they give reasonably good evidence of correspondence between stem-form and meaning in the parent speech. Among roots in the case of which only the nasal form of the present is well established for IE, and in which the terminative aspect prevailed, some of the most outstanding are: 3 *jeug-*, 2 *yeid-*, *bheid-*, 2 *bheug(h)-*, *meug-* (*meug-*), *sqēid-*. Among the roots forming present stems of the type **leiq^hō*, with durative action, are *deuk-*, *steigh-*, and *sneigh^h-*; perhaps also *bheidh-*, which has presents of the type in question in Greek, Latin, and Germanic, and a nasal form only in Albanian; but the Greek present stem *πειθω* often signifies in Homer not the attempt to persuade but the successful completion of the act, (Δ 104, Z 51, α 43, η 258, etc.). In this connection it is well to refer to Delbrück 83 ff., where it is shown that the thematic forms with the strong grade of the root had not only the cursive but in many cases the terminative aspect. Of present

³³ In the forms *pra-stiñnoti* and *pra-stiñnuyāt* in *Māitrāyaṇi-Saṃhitā* 2.1.12, regarded as corrupt forms of *pra-stighnoti* and *pra-stighnuyāt* and meaning 'reach, attain to'. See Schroeder, ZDMG 33.194 f.

³⁴ 'Erreichen'. See Leskien, *Handbuch der altbulgarischen Sprachen* 333 Heidelberg, 1922.

stems of this type showing both aspects a good example is Skt. *bódhati*, signifying either 'become conscious' or 'be conscious'. See the discussion of the root *bheudh-* above, where it is suggested that the nasal forms Gr. *πυνθάνομαι* and Lith. *bundù* may have developed independently in the two languages.

It is hardly necessary to call attention to the fact that IE even before its separation into its branches (among which some must have separated earlier than others) was not completely homogeneous over the whole area in which it was spoken.³⁵ It is obvious that certain present stems were current in some parts of the speech-community and not in others, and as the individual languages developed, most of the present classes became more productive in some languages and disappeared in others, sometimes through the loss of their special characteristics through phonetic changes. The nasal-infixing class is considerably less common in Greek than in Sanskrit, Latin, and Lithuanian, and less common in Germanic than in Greek. The few Germanic verbs belonging to this class have extended the nasal into the non-present forms and assumed the vowel-gradation of the third class (the class represented by Gothic *binda*—*band*—*bundum*—*bundans*).³⁶ The preference of non-nasal presents, such as Goth. *beitan*, to the nasal type, or the back-formation of such presents from the preterite (e. g. *bait* : *beitan* after *staig* : *steigan*), may have been favored by a number of factors. Forms containing *u* + nasal have, in the Germanic system of conjugation, much more of the appearance of passive participles, and there is at least one probable case in which the present changed *u* to *i* and followed the third class (see on Goth. *stinggan* above under root *steig-*).³⁷ Moreover the loss of the nasal before *h*, *hv*, followed by lengthening of the preceding *i*, *u*,³⁸ caused certain nasal presents to fall into the first and second classes.

The treatment of the semasiology and distribution of the nasal-infixing presents has by no means been exhausted by the material presented in this article. The behavior of the verbs which I have discussed has some parallels among verbs from roots containing medial *a* (observe, for example, the two Greek presents *λανθάνω* and *λήθω*, Doric *λάθω*), and

³⁵ On differences within speech-communities see Bloomfield, *Language* 44 ff. (New York, 1933).

³⁶ Streitberg, *Gotisches Elementarbuch*, 5-6 144, Heidelberg 1920.

³⁷ Raith, *Die Englischen Nasalverben* (Beiträge zur Englischen Philologie 17.23 ff., 98 ff. Leipzig, 1931).

³⁸ Streitberg 72, 75.

where the same root makes both nasal and non-nasal present stems, it might be possible to discover differences of meaning. Also, the present stems with the nasal suffixes *-nā-* and *-neu-*, which are said by Delbrück not to differ in aspect from the infixing type, deserve to be studied by comparison with the non-nasal forms from the same roots. Unfortunately these two types are not nearly so well represented in the majority of the branches of the Indo-European family as are the stems with the infix.

THE MESSAPIC KLAOHIZIS FORMULA

RUTH MOORE BECHTEL

The words *klaohizis* (or *klaohi*) *veinas* (or *venas*) *denθavan* occur in two inscriptions, namely 371 and 436 b,¹ in what seems to be an opening formula; while 474 opens with a partial version of the same, the reading of which is doubtful and will be considered later in some detail. Unfortunately, all three inscriptions in which this formula occurs have been lost or destroyed, so that it is attested only in transcription. But since these transcriptions are the work of different copyists, and since the three words of the formula have been preserved in several independent sources, it seems to me, as to others, that they may be regarded as trustworthy authorities. The authenticity of these inscriptions has often been impugned, but at the date at which the transcriptions were made, knowledge of Messapic was hardly sufficiently advanced for them to have been forged—they are far too convincing as Messapic.

The full formula occurs in 371 and 436 b; in 474 a 1 we find only *klaohizis denθ-n*, with a lacuna which some scholars fill in with *-ava-* so as to give *denθavan*. *Klohizis* by itself occurs in 476 and 515. In 371 the actual reading is not *klaohizis*, but *klaohi*, and I can see no reason, as I shall later explain, for altering the reading.

First of all we must settle a very fundamental point—whether *klohizis* should be regarded as a noun or a verb. In order to do so, it is necessary to examine the word carefully in every context in which it occurs. Ribezzo regards it as a noun with the meaning 'princeps', but such tautology as we get from his version of 371,² 'Noster princeps regnans dux', seems very unusual in official documents, which are generally terse and concise. In 476 *klohizis odati ozar* and 515 *klohizis aviθos θotorridas ana aprodita apaogrebi* it might equally well be regarded as either. When we come to 474, Ribezzo's attempt at translating the word as a noun, 'Il sovrano imperante alla città',³ seems very awkward. In 548

¹ The references for the Messapic words and forms are, unless otherwise specified, to the edition of the Messapic inscriptions by Whatmough, in *Prae-Italic Dialects of Italy*, 2.268 ff.

² *La lingua degli antichi Messapii* 85.

³ *Ibid.* 86.

he has to resort to a personification, 'La Sovranità civica'.⁴ Nor does there seem to be a parallel for such a nominal formation.

On the whole, it seems to me that we get a much better explanation of all the inscriptions involved by following Torp in taking *klohizis* as a verb.⁵ The base is presumably **qley-*, which would become **klao-*, **klō-* in Messapic.⁶ To this is added an *-i-* formant, an *h* to indicate the hiatus, the sign of the sigmatic aorist (written *z*), the optative element *i*, and *s*, the ending of the second singular. The form might otherwise be regarded as an *iṣ* aorist like the Sanskrit *aniṣur*, *aviṣat*, and possibly Latin *vidisti*.⁷ Krahe, in a recent discussion of the Basta inscription (548),⁸ divides *klohizis* into two words *klohi zis*, which he interprets as 'audi Iupiter', taking *klohi* (cf. also Deecke⁹) as the equivalent of Skt. *śroṣi* < IE *kleu-si*. But it seems to me that I have elsewhere¹⁰ brought forward sufficient evidence to prove that intervocalic *s* was preserved in Messapic.

Veinas is explained by Ribezzo¹¹ as a formation based on IE **yei-*, cf. Skt. *vayám*, Goth. *weis*, with a meaning 'noster'. Torp explained it as a possessive adjective 'suus', built up by adding the suffix *-no-* to the locative **syei-*,¹² a form comparable to Goth. *meina*, *peina*.¹³ This meaning would fit very well in the inscription of Basta. In this formula, however, there is no construction for a possessive pronominal adjective. I have two alternative suggestions to offer. On the one hand, we might explain *veinas* as a pronoun of identity, semantically equivalent to Gk. *αὐτός* and Lat. *ipse*, built up by adding *-no-* to the locative **syei-*. For the formation we may compare also Alb. *vete* 'same' < **sye-ti*,¹⁴ OIr. *fein*, *fadein*, Skt. *svayam* 'self', Arm. *in-khn* (*kh-* < **sy-*). That the base **sye* might be expected to give rise to a reflexive meaning rather than that of the pronoun of identity should not constitute an overwhelming objection to this view when we consider the state of affairs existing in some of the Greek dialects. In Homer, in the West Greek

⁴ Ibid. 101.

⁵ IF 5.197.

⁶ See PID 2.601 ff.

⁷ Hirt, *Indogermanische Grammatik* 4.249.

⁸ IF 54.87.

⁹ RhM 40.142.

¹⁰ Lang. 11.129-139.

¹¹ Ling. d. ant. Mess. 75.

¹² IF 5.200.

¹³ See Whatmough in HSCP 42.153.

¹⁴ G. Meyer, BB 8.192; Alb. Wb. 468.

dialects, and in Arcadian, where we find the identity-pronoun *αὐτός* used as reflexive¹⁵, we have a parallel for this close connection between the two ideas.

A second possibility involves the stem **sye/o* which gave rise in the locative singular feminine to Osc. *svat*, *svatpis*, Umbr. *sve*, *svepis*, and in the accusative singular neuter to Hom., Delph., Cret., Lesb. *ὅτις* < **σφοδτίς*. This latter derivation, however, it must be admitted, is not beyond question, as it is based chiefly on a Locrian form which is considered doubtful by Bechtel.¹⁶ In the second half of *veinas* we might recognize the old pronominal stem **eno-*, found in Lith. *anàs*, Skt. *aná-*, OCS *onu*, and Gk. *ἐκεῖνος* < *ε* + *κε-ενος*, *ἐνῆ*, *ὁ δέῖνα*, Dor. *τῆνος* < *τε-ενος*. *Veinas*, then, would come from **syei-enos*, and would be nominative singular masculine, equivalent in meaning to Osc. *svatpis*, Gk. *ὅτις* 'whosoever'.

For both these meanings it is necessary to prove that IE *sy-* became *y-* in Messapic. In itself the development is not at all unlikely. While Latin sometimes retained the group **sy-* intact, e.g., *suavis*, sometimes simplified it to *s*, e.g., *serenus*, cf. Skt. *svár-*, certain of the Greek dialects dropped the first element. It is quite reasonable to suppose that Messapic, which shows many affinities with the western Greek dialects, should show the same development of this consonant group. However, it must be admitted that there is only one piece of direct evidence. The form *φετεπισε* in 392 seems to contain a form equivalent to Gk. *ἐ* (Hom. and dial. insec. *φε*) and a sigmatic aorist *τεπισε*. There is also a group of Venetic words which may perhaps be taken into consideration. In the Venetic inscriptions we have *ven.n.a tola.r.* (169), *ve.ine.s* (161), *ve.noni.s* (144), and in Latin sources *Vennum* CIL 5, p. 398, and the gens *Vennonia* CIL 5.1.2876. My theory about these Venetic words, which are apparently all proper names, is that they are based on the same stem **sye-*. It is interesting to note in this connection that in Greek the pronoun of identity is a very productive element in the formation of proper names. With *Ven.n.a*, *Ve.noni.s* compare *Αἰτῶν* IG 12.5.872, with *Ve.ine.s* *Αἰρέας*, *Αἰρίας* Ditt. Syll. 241.205. In 169 *tol.a.r.*, if not a verb, as suggested by E. F. Claflin,¹⁷ might be taken as a second proper name cognate with Gk. *τολή*, IE **telā-*, also used as an element in the formation of proper names, cf. *Τολμαῖος* IG 9.2.6e.21.

¹⁵ See Bechtel, *Die Griechischen Dialekte* 1.299; also von Blumenthal, *Glotta* 18.151-3.

¹⁶ Op. cit. 2.7, see also Buck, *Greek Dialects* 94.

¹⁷ *LANG.* 12.23-34.

For names ending in *-ar*, compare Messapic *Lixidar*, *Dassinar*, *Tizaopar*. The word *maxetlon* which follows *ven.n.a tola.r.* in this inscription would then denote the dedicatory offering, and might be derived from IE **magh-* (Walde-Pokorny 1.223), cf. *μάχη*, *μάχομαι*, *μάχαιρα*, probably with the meaning of the last, plus the common IE *-tlo-* formant seen in Lat. *pōc(u)lum*, Skt. *pātram*. The verb would then be omitted, but this is by no means unusual in dedicatory formulae.

Peter Fishman, in his dissertation on the vocalism of Messapic,¹⁸ maintains that *i* should not be restored to read *veinas* in 371. He prefers to read *venas* here as in 436, separating these forms from *veinan* in the Basta inscription, for which he accepts Torp's explanation. Both of my interpretations are possible even if this reading be accepted. It would not be necessary to assume a locative **syei-*, for the form might be built up from the simple stem **sye-*. However, I am very dubious about the advisability of separating these forms from *veinan* in the inscription of Basta, and should prefer to consider *venas* erroneous. In any case, it is rather futile to argue about the reading here, since emendation in the case of an inscription which we no longer possess can at best be highly conjectural.¹⁹

Denθavan was explained by Ribezzo as a participle with suffix **-yent-*, Skt. *-vant-*, Gk. *-fevr-* of the base **deme/o* seen in Lat. *dominus*, with loss of final *-t* as in Sanskrit. Ribezzo's explanation of the formation I am inclined to accept, but do not agree with him in assigning it to that base. I should prefer to connect it, like the form *dentan* 558.3 (= *θενο-ν*), with the base **dhē-*. It would then be a structure analogous to the *-vant-* participle in Sanskrit, which is a secondary derivative formed from the passive participle by adding the possessive suffix *-vant-*. This participle, which has the meaning and construction of a perfect active, e.g., *tat kṛtāvān* 'having done that', is chiefly used predicatively, without copula expressed, and has the value of a personal verb form in past time, e.g., *mā na kaścid dr̥ṣṭavān* 'no one has seen me'.²⁰ One serious objection to this explanation was pointed out to me by Professor Franklin Edgerton, namely, that the *-vant-* participle, except for one occurrence in the Atharvaveda (9.6.38), is found only in Classical Sanskrit. It would seem, therefore, to be a later development, and

¹⁸ The Vocalism of Messapic 10 (Harvard, 1934).

¹⁹ Mention should be made of Krahe's recent suggestion (IF 54.88 f.) that *venas* like *zis* is a divinity = Lat. *Venus*. But Krahe stops short with this word and takes no account of *denθavan* which follows it in both 371 and 436 b.

²⁰ Whitney, Sanskrit Grammar 344; Brugmann, Gdr.² 1.381.

not an ancient IE inheritance. On the other hand, Brugmann²¹ held that the type *kṛtavant-* gave rise to the frequent classical Sanskrit perfect participle active during the Vedic period. Moreover, even if this point be waived, I can see no reason why we could not assume a parallel development of this structure in Messapic. *Denṭavan* would be a participle of this type from a nasal extension of the base **dhē-*, of which the perf. part. pass. would be **denta*. As an example of the same base with *-ne/o-* suffix we may cite Arm. *dnem* 'I place'; other heavy monosyllabic bases with suffixed nasal element are **stā-*, e.g., Goth. *standan*, and **do(y)*, e.g., Lat. *danunt* (Plaut. Capt. 819, Pacuv. 207, Caecil. 176, Naev. ap. Non. 97, CIL 1.2.1531.7 (150 B.C.)). *Danunt*, cited as a nasal present in Meillet-Ernout²² and by Sturtevant,²³ is otherwise variously explained as the result of dissimilation, <**dant-unt*,²⁴ or analogy (*situs* : *sinunt* = *datus* : *danunt*).²⁵ The fact that we have a number of other similar forms—*prodinunt*, *obinunt*, *redinunt*, *nequinunt*, *ferinunt*, *explenunt*, *solinunt*, *inserinuntur*—seems to me to point to a series of nasal presents existing in colloquial speech alongside of the classical forms.

The base **dhē-*, with its extensive cognates in Indo-European languages, developed many different shades of meaning. One of them, found in both Latin *facio* and Greek *τῆθμι*, 'consider, regard, hold of importance', would be appropriate here, as we shall see when we proceed to a translation of the phrase as a whole.

If we take *veinas* as an identity-pronoun, we may translate as follows: 'Hear! You yourself are concerned', i.e., 'This is your own concern', an emphatic heading to attract the attention and interest of the passer-by. In that case, *veinan aran* in the Basta inscription might be rendered 'the land itself', i.e., her landed property, exclusive of other kinds. If, on the other hand, we take *veinas* as the indefinite relative, we would translate 'Hear, whosoever is concerned'. With this meaning, *veinan aran* in the Basta inscription might be rendered 'whatsoever land', i.e., all the land she has. As we have seen, Sanskrit gives us a perfect parallel for the syntax.

It remains now to see how this explanation works out with the inscriptions involved. No. 371 is the inscription of Monopoli, which is

²¹ Gdr.² 2.1.463.

²² Diet. Etym. 264, s.v. *do*.

²³ Lang. 7.169 f.

²⁴ Brugmann, Gdr.² 3.2.633.

²⁵ Sommer, Lateinische Laut- und Formenlehre, Kritische Erläuterungen 132.

now known only from the very unsatisfactory printed copy of Nardelli, published at Naples in 1773. The text has no doubt been much corrupted in transmission, but some corrections have been made which seem unnecessary to me. For instance, why change *klaohi* to *klaohizis*? *Klaohi* gives us a perfectly good 2 sg. pres. impv. (like Lat. *audi*).

Many obscure points have been cleared up through the labours of Torp, Ribezzo, and Whatmough, and I offer here what might be termed an eclectic rendering.

Valdes: nomen, nom. sg. masc., probably cognate with Lat. *valeo*, Lith. *valdza*, Goth *waldan* < **yaldh-*; either an epithet 'dux', or a proper name, cf. *Valerius*, Pael. *Valesus*.

Taimakos: nomen, nom. sg. masc., with Gk. termination *-os*; almost certainly a proper name, cf. Tarentine *δαίμαχος* Head, Hist. Num.² 65, *Δαίμαχος* Thuc. 3.20.

invinta: acc. sg. masc. of *-nt-* extension, with prefix *in-* of **yei-*, **yeiā-* 'infestum', cf. Skt. *vēti*, Lat. *invitus*, Gk. *ιευαι*.

valdian: acc. sg. masc. of *-jo-* stem.

Kosinin: acc. sg. masc. of proper name in apposition with *invinta* and *valdian*, with samprasarana as in Osc. *Pacim*, cf. perhaps *βλαμινι* (note xxviii, PID 2.292); cf. *Cosinius*, CIL 9.1455, 1506, 1803, 1805.

invitati: dat.-loc. of a noun formed on the base **yei-*, with formant *-tāt-* (as in Lat. *veritas*, 'bellum').

Lixidar is probably a proper name, cf. *Licinius* CIL 9.422, 388, 245, and *Liconius* CIL 9.1861, 1968, both of which are found in Messapic territory; cf. also *Licovius* CIL 3.5625.²⁶ It is probably genitive case written in an abbreviated style, i.e., without the inflexional ending, for which we have a parallel in 474 a 3, *Dassinar* for *Dassinaris*.

pahexita: Ribezzo suggested that this is equivalent to Gk. *ἀπέχετο* with apocopated form of the preposition.²⁷

tooitinai: nomen, dat. sg. fem. of *-ina-* extension of the base **teut-*, 'urbi'. Perhaps it is a mistake for **taot-inai*, which is what we should expect (**-ey-* > Mess. *-ao-*, *-ō-*).

hidita: 3 sg. mid. impf. or aor. with adv. prefix *hi-*, from IE *ǵhe/o-*; *-di-* perhaps represents the reduced grade of **dhēi-*. The diphthongal form of the base **dhē-* is attested by Skt. *dheyam*, *dheyur*, *adhīmahi*, *adhāyi*, Hitt. *tiya-*, *tais* 'he placed'.²⁸

²⁶ For other related names see Krahe, PN-Lex. 66, 67.

²⁷ Ling. d. ant. Mess. 85.

²⁸ Sturtevant, HG 96, 103.

Issinom: gen. plur. masc. *Issa*, a Dalmatian town, is mentioned by Caesar (B.C. 3.9), of which this may be an ethnonim, with *-in-* extension.

aion: acc. sg. of stem in *ōu-*, like Gk. ἦρως, μῆτρως; probably cognate with Latin *aes*, *aeris*, Goth. *aiz*.

toatas: probably a mistake or misspelling of *taotas*, gen. sg. of consonant stem **teut-* 'civitas'.

ioeinai: dat. sg. fem. of *-ā-* stem, IE **ḱeu-*, **ḱuyen-*, cf. Umbr. *ioues* 'iuvenibus, militibus', Lith. *jaūnas*, Lat. *iūvenis* 'militia', with *oe* probably a mistake for *ov*, the two letters being very similar in the Messapic alphabet (E, F).

'Hear ye, whoso is concerned. The chief Taimakos warded off the enemy chief Cosinius, son of Lichidar, in warfare. He dedicated to the city the spoils of the militia of the state of the Issini'.

Let us now examine No. 436. The inscription was discovered in 1847 at Carovigno, and was said to have been afterwards cut up and used as building stone. There were in existence two copies of the inscription, both made by Dr. Vincenzo Andriani of Carovigno. It appears to be a civic document also. Ribezzo thought it had something to do with the creation or selection of a civic body.

The first word after the introductory formula, *ennan*, Ribezzo explained as from either **edhna*: Gk. ἔθνος, or **senja*: Lat. *senex*, *senium*, with the meaning 'senate or gerousia'.²⁹ But as for the first suggestion, Gk. ἔθνος does not come from **edh-*, but from **yedh-* or **syedh-*, and as for the second, I have shown elsewhere³⁰ that initial *s* is preserved in Messapic. A possible interpretation was suggested to me by the statement of Aristotle, Pol. 4.10.1329 b, that the inhabitants of south Italy in general, and the Messapians in particular, were among the earliest peoples to establish the custom of common meals: καὶ τὰ συσσίτια καταστήσαι πρώτων. We might then derive *enna* from **ed-na*, cf. Skt. *admaḥ*, Lith. *edra*, Gk. ἔδεσμα.

tothebis appears to be dative plural of a noun **totthes* < **totḱos*, cf. Lat. *tuticus*, Osc. *touta* 'civitas, urbs, populus'. I have elsewhere³¹ distinguished two forms of the dative plural in Messapic—one ending in *-bas*, for which we have one certain example, *logetibas* in 526,³² the other end-

²⁹ Ling. d. ant. Mess. 103.

³⁰ LANG. 11.129-39.

³¹ In a paper read before the Linguistic Society, December, 1936.

³² *Laidehiabas* in the same inscription has also been taken as a dative plural (by Kretschmer, Glotta 12.276 ff.), but von Blumenthal's recent suggestion that the inscription be divided as follows: *Laidehi Abas logetibas* 'Laidii Abae manibus' seems more satisfactory to me.

ing in *-bis*, which is represented by two fairly well-attested forms, *valethabis* (442.5), and the form at present under discussion. As for the medial *e* in this form, if that be considered a difficulty, it might easily have been extended to the oblique cases from the nominative **totthes*.

adazinnota: 3 sg. impf. mid., perhaps an extension and compound of **dō*, **dē*-, with *-innota* equivalent to Gk. *-εννυτο*.³³

totor: nom. sg. masc. of noun formed on base **teut-* by addition of suffix *-e/or* referring either to some municipal official or to a civic body.

Next follows a list of people in different localities, each of whom was responsible for the arrangements in his particular town or locality.

Borrahētis: a proper name serving as a cognomen to indicate either place of origin, cf. *Barra*, *Barium*, or occupation, with the meaning 'builder', cf. *βαρριον* Et. Magn. 389.24, *βυριόθεν οἰκοθεν* Hesych.³⁴

palanaindai: 3 plur. mid. opt. serving as imperative from base **pel-*, cf. Gk. *πάλλω*, Lat. *pello* < **pel-no*, Umbr. *ārpeltu* 'appellito, admoveto'. There seems to be anaptyxis between *l* and *n*, cf. Osc. *teremniss*. As sporadic instances of this phenomenon in Messapic we may perhaps cite *Laparedonas*: Dalm. *Lapricius*, *kiritas*: *kritaboa*, *Aratames*: *artahiaihi*. Probably *-nt-* has become *-nd-* as in Oscan, although in Messapic there is such frequent alternation of *d* and *t* that in some cases at least the pronunciation of media and tenuis appears to have approximated very closely.

We may translate somewhat as follows: 'Totor (civic body or official, or perhaps even a proper name) established common meals, and for the citizens at Azetium let Xlannatas Mareolles and at Uzentum Taimakos Teinnatainnes of Barium make provision; at Tarentum not only (*anda—anda*) Dazetius son of Hastorus and Zatetius son of Dazius, but also Madius Iettis son of Dazet, Dazet Hastorius Hanaius (either of the last two might be regarded as the patronymic), Tea... Hesxeorris son of Hestorius,³⁵ Blattius Zarius of Diria and Aiddetis of Uria.'

No. 474 was discovered in 1765 at Brindisi, and was preserved for a time in the private collection of the Archbishop Annibale de Leo of Brindisi. Mommsen published it for the first time in Ann. d. Istr. 20.72, plate II (1848) from a copy which he saw in 1846. The original is thought to have been destroyed during the French occupation of Brindisi in the early part of the nineteenth century. A copy of the inscription is still preserved among the papers of Ortensio de Leo. It

³³ Whatmough, PID 3.3.

³⁴ PID 3.10.

³⁵ This new word division was suggested by Fishman 150.

seems to be a proclamation relating to the collection and disposal of revenue, taxes or tribute. The translation owes much to the successive labours of Torp³⁶ and Ribezzo,³⁷ culminating in the revision of Whatmough, who offers a most convincing explanation of the entire inscription except for the opening formula.³⁸ Both copies read *klaohizis denθ-n v(a)sti*. Ribezzo and Whatmough both supply *-ava-* in the lacuna, 'for which', however, as the latter remarks, 'both (copies) A and O hardly allow sufficient space'.³⁹ Torp read *denθa vastin*, in which *denθa* = *θετο*, 3 plur. aor. mid. of base **dhē-*. In the case of this inscription, it seems better to supply only *a*, reading *denθan vasti*. *Denθan* would then be identified with *dentan* in 558.3, and classified as a 3 plur. root aorist of the base **dhē-*, middle voice, and *vasti* would be dative-locative singular with *-ei* > *-i*. The only part of our opening formula here, then, is the first word *klaohizis*, which we find alone also in 476 and 515. We may then translate 'They have decreed for the state'. Then follow the instructions about the yearly payments by the separate vici, and a list of names of individuals concerned in the collection. The reader is referred to Whatmough's exposition for this part of the inscription.

There are, then, two versions of this conventional opening formula—a shorter one, containing simply the word *klaohizis* 'Hear ye!', found in 474 a, 476, 515.1, 548.1, and a longer form, with the three words *klaohizis veinas denθavan*, 'Hear, whosoever is concerned', or 'Hear, you yourself are concerned', found in 371 and 436.

³⁶ IF 5.200.

³⁷ Ling. d. ant. Mess. 86.

³⁸ PID 2.574.

³⁹ PID 2.358.

A PROPOSED ETYMOLOGY: *aller* < **ad-iterare*

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The word *aller* has called forth a great variety of etymological explanations, none of which is completely satisfactory to the linguistic scholar. However, I make bold to offer a fresh contribution to the problem, in the hope that it will fulfill all three requirements of a good etymon, phonological, historical, and semantic.

The well-known hypothesis, that *aller* comes from the rapid giving of military commands, *ambulemus*, **amlemus*, **allemus*,¹ offers serious phonological difficulties. Not only does *ambulare* give *emblem* regularly in Old French, but, in addition, both *ambulare* and *alare* appear in the Reichenau Glosses. Furthermore, it is not necessary to seek a common etymon for the verb 'to go' in Romance, since the very confusion of forms existing in the conjugation of this verb in all the Romance tongues is enough warrant for positing a separate origin for the Northern French *aller*.

Baur² gives an alluring theory in **allare* formed from *allatus*, which has been defended recently at some length by E. F. Parker.³ Baur can cite, however, in support of this formation the lone example *prostrare* from *prostratus*; and Parker, in adding *ausus* > **ausare*, *usus* > *usare*, *oblitus* > **oblitare*, is not strengthening the case, since these are, unlike *prostratus* > *prostrare*, real frequentatives.

J. D. M. Ford has advanced an hypothesis, which unfortunately is little known because of the inaccessibility of the volume in which it is printed.⁴ He takes *aller* from *ad* + *de* + *illa(c)* + *-are*. His etymology is phonologically unassailable, although the combination of particles may seem at first a bit startling. Nevertheless, Ford points, in support of his theory, to the analogous formations *de* + *ab* + *ante* + *-are* > OFr. *devancier*, *ab* + *ante* + *-are* > OFr. *avancier*, and *de* + *in* + *ante* + *-are*

¹ Cf. Körting, *Lateinisch-Romanisches Wörterbuch*³ s.v. (Paderborn, 1907).

² *Zeitschrift für romanische Philologie* 2.592.

³ A Defense of the Etymology *allatus*, **allare*, *aller*; PMLA 49.1025-31 (1934).

⁴ This etymology is in the volume of studies dedicated to José Leite de Vasconcellos and published in Portugal. Professor Ford himself has not yet seen the printed volume.

> OSp. *denantar* > NSp. *delantar*. One might, however, raise the objection that the last three verbs are formed from adverbs already existing in the vernaculars, *devant*, *avant*, and *denante*, whereas there is no extant French adverb from *ad* + *de* + *illa(c)*.

Iterare, with the meaning 'to go', is common in Vulgar Latin. Although in Classical Latin it means 'to repeat' or 'to plough a furrow', in Vulgar Latin it has the sole, or at least the principal, meaning 'to make a journey', *iter facere*. Du Cange gives this meaning alone, lists a number of references, and judges it to be so common that he appends to the list the sign &c.⁵ It is to be found in the glossary of the King of Hungary,⁶ and Robert Estienne even cites this meaning from as early a source as Aulus Gellius (2nd century A.D.).⁷ Some further examples are given by Baxter and Johnson,⁸ who include an additional meaning 'to go on eyre or circuit'. That *iterare* was so used in Northern Gaul is attested by the existence of Old French *errer*, in which the *r* did not dissimilate but remained.⁹ This verb appears in its earliest form, *edrer*, in the tenth and eleventh centuries.¹⁰ Both tonic and atonic formations, *oirrer* and *errer*, are found in Old French.

The fusion of *ad* and *iterare* is a logical and a usual one. Many examples of *ad* plus a verb of motion may be found in Old French, e.g., *acheminer* < **ad-camin-are*, *arouter* < **ad-rupt-are*, *arriver* < *ad-ripare*, *avenir* < *ad-venire*, *avoier* < *ad-viare*, etc. The question arises whether the compound is a parasynthetic **ad-iter-are*, or whether it is the direct juxtaposition of preposition and verb, **ad-iterare*. Inasmuch as com-

⁵ Du Cange, *Glossarium ad Scriptores Mediae et Infimae Latinitatis*, Tomus III, Parisiis, MDCCXXXIII: *Iterare*, *iter facere*, ἰδοικωρεῖν in Gloss. Lat. Gr. occurrit apud S. Columbanum instr. 8. Fortunatum in Vita S. Paterni Episc. c. 7, in Vita S. Arnulfi Episc. Metens. c. 25 in Lege Longob. lib. 1. tit. 19. 8. tit. 25. 45 in Syndo Carisiac. 9. apud Ditmarum, &c.

⁶ *Glossarium Mediae et Infimae Latinitatis Regni Hungariae*, condidit Antonius Bartal, Lipsiae, MCMI: *Iterare*, *iter facere*, *petere aliquem locum*; utazni. Georg. Sirm. 1.25, sed Rex volebat cum eo ad Turciam *iterare*.

⁷ Roberti Stephani, *Thesaurus Linguae Latinae*, tom. II, Londini, MDCCXXXIV: *Iterare*, pro Ire posuit Gell. lib. 3. cap. 18. Sed eos Senatores, inquit, qui magistratum curulem nondum ceperant, pedibus *iteravisse* in curiam. Quidam codices legunt Itavisse: & recte, ut opinor. (Not rightly, for the syllable *-er-* was probably represented by the usual manuscript symbol.)

⁸ J. H. Baxter and Charles Johnson, *Medieval Latin Word-List* 234 (London, 1934).

⁹ W. Foerster, *Wörterbuch zu Christian von Troyes* 123 (Halle 1914); Godefroy, *Dictionnaire de l'ancien français* 3.331 ff. (Paris, 1881-1902); see also Philippe Fuchs, *Das altfranzösische Verbum Errer* (Erlangen, 1919).

¹⁰ *edrat*: Vie de saint Leger 69, 113; *edrrers*: Vie de saint Alexis 190.

pounds with *error* < *iterare* are found in Old French, e.g., *meserrer*,¹¹ *enerrer*,¹² and since, moreover, if it were a parasynthetic, this would probably prevent the dissimilation of the *r* into *l*,¹³ I am inclined to believe that it is a direct verbal compound, **ad-iterare*. Furthermore, Godefroy records under *error*,¹⁴ with the meaning 'to go', the forms *arrer*, *arer*,¹⁵ which are precisely what we should expect from Vg. Lat. **ad-iterare*.

As for *aller* < **ad-iterare*, the phonological process is as follows. The first *r* becomes *l* by dissimilation (**ad-itelare*), a change which is found in Vulgar Latin as early as the third to the fifth centuries,¹⁶ and which I shall attempt to justify below. The intertonic vowels drop by syncope, giving **adllare* > **adlare*,¹⁷ which may occur as early as the fourth to the sixth centuries,¹⁸ although whether the dissimilation *r - r* > *l - r* came in before or after the syncope cannot be determined.¹⁹ The *d* then assimilates to the *l*, giving **allare*, *alare*, which occurs between the fifth and sixth centuries.²⁰ *Alare*, as is well known, appears in the Reichenau Glosses,²¹ which are assigned to the eighth century. To complete the chronological picture, the tonic *a* becomes *e* in Northern Gaul as early as the sixth century, according to Richter,²² while the final unaccented vowel *e* falls between the seventh and eighth centuries.²³

¹¹ Foerster, Wörterbuch 182: *meserrer* < *minus* **iterare* (sic).

¹² Godefroy, Dictionnaire 3.137.

¹³ M. Grammont, La Dissimilation consonantique dans les langues indo-européennes et dans les langues romanes 16 (Dijon, 1897), law 5: 'Il ne se produit pas de dissimilation quand l'étymologie des différentes parties du mot est évidente pour le sujet parlant'.

¹⁴ Godefroy, Dictionnaire 3.331.

¹⁵ On the other hand, these forms might be due to the obscuring force of the *r*. Cf. *marchê* < *mercatu*, *par* < *per*, *larmes* < *lermes*, etc.

¹⁶ Elise Richter, Chronologische Phonetik des Französischen bis zum Ende des 8. Jahrhunderts 131 (Beihefte zur romanische Philologie, Heft 82, Halle/Saale, 1934).

¹⁷ According to Darmesteter's law, by which the pretonic part of a word is treated like the posttonic, **adite-läre* would give regularly **ad-* or **at-* + *-ler*. Cf. *nitidum* > *net*, *putidum* > *put*.

¹⁸ Richter, Phonetik 146.

¹⁹ Ibid. 92. Richter claims it is more probable that dissimilation preceded syncope. For example, *meretricem* gave *meltrice*, but not ***mertrice* first.

²⁰ Ibid. 176-7.

²¹ *Alare* and its compounds occur four times in the Reichenau Glosses: 1028 *alatus factus*, 1122 *ultra alare*, 1130 *transalaret*, 1131 *transalavit*.

²² Richter, Phonetik 223.

²³ Ibid. 244.

To sum up then, the development of *aller* from **ad-iterare* would be: **ad-iterare* > **ad-itelare* > **adtlare* > **adlare* > **allare*, *alare* > **aller**, **aler** > *aller*, *aler*.

Since the above etymological explanation of *aller* hinges largely upon the dissimilation of the *r*, it will be well to inquire into the possibility and frequency of such a sound change in Old French. Grammont, in his well known work on dissimilation,²⁴ states as his law XVII: 'De deux phonèmes intervocaliques c'est le premier qui est dissimilé', but goes on to say that the examples of *r - r* > *l - r* are rather rare in French.²⁵ Some words which might be cited as cases of such a dissimilation, according to Grammont, owe their apparent change to pure analogy.²⁶ He also claims that *contralier*, cited by Meyer-Lübke (Gr. rom. 1.513), is not the same word as *contrarier*, and does not show dissimilation.²⁷ However, there are a number of examples of the change *r - r* > *l - r* in both Vulgar Latin and Old French, in which one *r* is part of a consonantal group. Grammont gives the following:²⁸

18 *vertragos* (Gallic) > Vg. Lat. **veltragus*

18 *heriberga* (OHG) > **arberg-* > *alberga* > *auberge*

26 *fragrare* > *flagrare* > *flairer*

33 *Arvernica* > **Alvergne* > *Auvergne*

33 *peregrinum* > *pelegrinu* > *pèlerin*

33 *paraveredum* > *palafredu* > *palefroi*

40 *coriandrum* > *coliandru*

60 *meretrix* > *meletrix*

He also lists (66) as examples in French itself:

corridor > *colidor* (pop.)

Amerécourt > *Amelécourt*

Meyer-Lübke²⁹ cites OFr. *aubre* for *arbre* from the Amis, 572. Elise Richter offers an additional example in Vulgar Latin: *pereger* > *peleger*.³⁰

²⁴ Grammont, *Dissim.* 84.

²⁵ Ibid. 84.

²⁶ Ibid. 116. OFr. *coronel* for *colonel*, and pop. Fr. *célébral* for *cérébral*, are founded on *couronne* and *célèbre* respectively. *Sommelier* does not come from *sommerier*, but is formed directly from *somme* and the ending *-elier* of *tonnelier*, *bourrelier*, etc. (128-9).

²⁷ Ibid. 117.

²⁸ Meyer-Lübke, Richter, and Hatzfeld and Darmesteter also cite some of these examples.

²⁹ Meyer-Lübke, *Grammaire des langues romanes* 512 (Paris, 1890).

³⁰ Richter, *Phonetik* 131.

Hatzfeld and Darmesteter³¹ list OFr. *veltze* for *vertre*, *salbotière* for *sarbotière* (popular form of *sorbetière*), *sorcellerie* for *sorcererie*, and call especial attention to verbs in *-eler*, such as *ensorceler* for *ensorcerer*, *écarteler* for *écarterer*, *décharneler* for *décharnerer*, *enchanteler* for *enchant-er*, etc. These last doubtless owe the form of their ending *-eler* to the influence of the Latin suffixes *-ulare* and *-illare*, *-ellare*, which give in French *-ler* and *-eler* respectively.³² In view then of this number of examples of the change $r - r > l - r$, especially those taken from popular speech, and also those which show the analogy of the Latin suffixes *-ulare*, *-illare*, *-ellare*, the change of **ad-iterare* into **ad-itelare* is not only a possibility but seems also justifiable.

The objection may be raised that, since *errer*, with the meaning 'to go', existed well into the fifteenth century,³³ it is unlikely that *iterare* should have developed differently in the simple and the compound forms. In answer, one has only to consider the large number of 'doublets', or divergent developments, in French, in order to substantiate the possibility of such a phenomenon. The following forms are found early in Old French: *Dieu*, *Deu* (< *Děum*); *Mathieu*, *Matheu* (< *Mathěum*); *Andrieu*, *Andreu* (< **Andrěum*).³⁴ Nyrop lists a number of dialectal forms which came into French in the sixteenth century, mostly from Provençal, and which exist side by side with central French forms to-day.³⁵

Pr. *auberge* and OFr. *herberge*, NFr. *héberge* < O.H.G. *heriberga*

Pr. *cadenas* and NFr. *chaîne* < *catēna*

Pr. *caisse* and NFr. *châsse* < *capsa*

Pr. *capelan* and NFr. *chapelain* < *capellanu*

Pr. *cagoule* and NFr. *coule* < *cuculla*

Pr. *escalier* and NFr. *échalier* < *scalarium*

Norm.-Pic. *canevas* and NFr. *chanvre* < *cannabem*

Norm.-Pic. *broquette* and NFr. *brochette* < Vg. Lat. **brocca* + *ettu*

Of these examples, the most pertinent is *auberge*. Darmesteter claims this word entered French from the Provençal in the sixteenth century,³⁶

³¹ Hatzfeld, Darmesteter et Thomas, *Dictionnaire général de la langue française* 133 (Paris, 1924).

³² Grammont, *Dissim.* 66-70.

³³ Fuchs, *Das altfranzösische Verbum Errer* 48 (Erlangen, 1919).

³⁴ Schwan-Behrens, *Grammaire de l'ancien français* 51¹, translated by O. Bloch, (Leipzig, 1913). The forms in *eu* are dialectal, and, when found in Francian texts, are to be considered learned.

³⁵ Kr. Nyrop, *Grammaire historique de la langue française* 1. §32 (Copenhagen, 1914).

³⁶ Hatzfeld, Darmesteter et Thomas, *Dictionnaire* 161.

but, according to Godefroy, it is found, together with its derivatives, as early as the end of the twelfth century.³⁷ The fact that the derivatives of *auberge* occur at this early date indicate that the mother-form was very much alive in Northern French, and existed concomitantly with the usual form, *herberge*, and had the same meaning 'camp' or 'shelter'. *Herberge*, both in its simple form and in its derivatives, occurs as early as the tenth century,³⁸ and as late as the seventeenth century.³⁹ *Herberge*, in its modern form, *h  berge*, is still in use today, but with narrowly restricted meaning, as a term of construction.⁴⁰ Thus, we have exactly parallel cases in *auberge*, *herberge*, and in *aller*, *errer*, the first pair being current at least from the end of the twelfth to the seventeenth centuries, and the second, from the ninth to the fifteenth centuries. What is most striking, however, is that both doublets show the same difference, the dissimilation $r - r > l - r$.

A second objection, similar to the preceding one, might be made that the semantic value of the *r* in **ad-iterare* would prevent dissimilation.⁴¹ However, at the end of the fourth century, Diomedes the grammarian complained that the people continually used *adito*, *aditare* for *adeo*, *adire*.⁴² Therefore, the coincidence of the first two syllables (three in the subjunctive) of *aditare* and **ad-iterare* would be sufficient to convey the meaning 'to go' in **ad-iterare*;⁴³ and this fact, coupled with the analogical influence of the verbal suffixes *-ulare*, *-illare*, *-ellare*, would leave the way open for the dissimilation of the *r* into *l*.

In order to complete the study of this problem, I have consulted the *Atlas linguistique*⁴⁴ and several dialectal works to see if there might

³⁷ Godefroy, *Dictionnaire* 4.453: Par ces *hauberges* en gisent bien set vint (Garin le Loherain, 2^e chans. XXXV, p. 152, P. Paris); 455: En ceste marche m'a *haubergi  * Pepins (Gar. le Loh., 3^e chans. I, P. Paris); 453: Tenant a *haubergement* Jehanne (1354, Arch. S. 208, pi  ce 7).

³⁸ Ibid., 4.455: *arberjara*n (Passion 59, Koschwitz); *arberget* (Passion 388); *herberget* (Alexis st.14^e, Stengel); *herberges* (Alexis st. 44^b).

³⁹ Ibid., 453: *herberges* (9 oct. 1529, proc  s-verb. Arch. Yonne, H 713); *herbergue* (Cout. de Tournay, Cout. g  n. 2.948,   d. 1635).

⁴⁰ Hatzfeld, Darmest  ter et Thomas, *Dictionnaire* 1231.

⁴¹ See Grammont, *Dissim.* 16 (law 5, cited in note 13); also R. G. Kent, *Assimilation and Dissimilation*, *LANGUAGE* 12.4.249 (1936).

⁴² Cf. *Thesaurus Linguae Latinae* vol. 1 s.v. (Leipzig, Teubner, 1900): *adito*, *-  vi*, *-  re*, *ab adire*. *Diom. gramm.* 1.345.1 hoc ('adeo, adis') *iteramus* 'adito, aditas' dictitantes, ut Ennius (trag. 394) 'ad eum aditavere'.

⁴³ It is conceivable that there was in the popular speech a series of verbs: *adire*, *aditare*, **aditerare*, **aditelare*, **aditinerare*, etc.

⁴⁴ J. Gill         et E. Edmont, *Atlas linguistique de la France* (Paris, 1902 ff.).

remain some evidence in the dialects to support the thesis, some trace of an *r* or of a *d*, which might speak for the etymon **ad-iterare*. Map 31, *allez*, of the Atlas, shows for the most part *ale* throughout the North; but in a restricted section of the East, in various localities, I found *ele*, *ela*, and *eli*.⁴⁵ Likewise, on map 27, *nous allons*, there appeared in practically the same region, except for the Jura and the Vosges, *el̥* and *el̥ä*.⁴⁶ In three places were found forms of *aller* with an *r*, and not an *l*. In the village of Rougegoutte in Haute Saône were recorded *ara tjeri* and *ara t̥jeri* for *aller chercher*,⁴⁷ and *s̥ ara* for *sont allés*.⁴⁸ At two places in the arrondissement of Lure in Haute Saône was recorded *ora* for *aller*.⁴⁹ Since, as far as I can ascertain from consultation of the Atlas and a number of treatises on the dialects of this region, *l* does not spontaneously become *r*, the presence of *r* instead of *l* in these examples might indicate provenience from **ad-iterare*. In French Switzerland, I encountered some very peculiar forms, the future of *aller* with a *dr*: *adre*, *adri*, *odri*, *odre*, *odri*, *edre*, *udri*, etc.⁵⁰ and also *de'rei*, *de're*, *'dore*.⁵¹ These may be the phonetic results of a regular future *alleraï* > *odre*, etc., as is stated in the new glossary of the French Swiss patois.⁵² On the other hand, the *d* and *r* may be the vestiges of an original **ad-iterare*.⁵³

To sum up, the evidence for the etymology *aller* < **ad-iterare* may

⁴⁵ *ele*: H. Marne, Yonne, Côte d'Or, H. Saône, Nièvre, Saône-et-Loire; *ela*: H. Saône, Jura; *eli*: Vosges.

⁴⁶ Cf. map 33, *allumer*, on which is found, throughout the extreme East, *elme* with variations, especially in Meurthe-et-M., Vosges, H. Marne, and Côte-d'Or.

⁴⁷ Gilliéron et Edmont, Atlas, carte 22, no. 65.

⁴⁸ Ibid., carte 32, no. 65.

⁴⁹ Oscar Bloch, Atlas linguistique des Vosges Méridionales (Paris, 1914): no. 26, Corravilliers (canton de Faucogney), and no. 23, Château-Lambert (canton de Mélieux).

⁵⁰ Gilliéron et Edmont, Atlas, carte 28, *Toi, tu iras*; also, carte 29, *Qui vous ira*.

⁵¹ Ibid., carte 28, and carte 29.

⁵² Gauchat, Jeanjaquet et Tappolet, avec collaboration de E. Muret, Glossaire des patois de la Suisse romande 1.290 (Neuchâtel et Paris, 1924-33); Mais ce qui donne surtout une physionomie particulière à la conjugaison romande de *aller*, c'est le fait que, sur un territoire continu embrassant Vd. [Vaud], F. [Fribourg], N. [Neuchâtel], et B. [Berne], le fut.-cond. a été formé, depuis le moyen-âge, par le radical *aller*, dont le fut. régulier, *alleraï*, aboutit aux types *odri* (Vd. F. N.) et *a:dre* (B.). Ajoutons que cette formation, quoique possible partout, ... ne s'est guère réalisée que dans les parlers de la S. R. [Suisse romande], où elle rattache, par exception, le Jura B. [bernois] aux cantons sud.

⁵³ For typographical reasons, I have transcribed the dialectal forms in this paragraph in I. P. A. symbols.

be stated as follows: (1) *iterare* exists in Vulgar Latin with the meaning 'to go', giving OFr. *edrer*, *errer*, *mes-errer*, *en-errer*, etc., and presumably **ad-iterare*, giving OFr. *arrer*, *arer*; (2) the change of **ad-iterare* to **ad-itelare* is justifiable; (3) the passage of **ad-itelare* into *aller* is phonologically correct; and (4) the dialectal evidence, though scanty, may be interpreted in its support.

STUDIES IN THE DICTION OF LAȜAMON'S BRUT

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PART II

G.

WORDS EXPRESSING MOVEMENT

§24. GOING AND COMING

ÆRNEſ intrans., wk. 'to ride, go on horseback; go, pass', etc. OE ærnan intrans. and trans. (See also IRNEſ, EORNEſ below.)

The verb is rare in OE, and its precise sense is hardly determinable from the two passages, from the OE Bede and Orosius respectively, cited in Bosworth-Toller. Madden, however, Glossarial Remarks 3.470, cites an illuminating passage from Alfred's Laws: *gif hie fah mon geierne oþþe geærne* 'reach (a church) by running or by riding' (see Alfred's English Laws, Cap. 5). This passage where the two verbs are contrasted, the latter being here transitive, is also quoted by Toller in the Supplement. With this cp. the quotations from Laȝamon in (ii) below. The verb, in the Pret. Pl., occurs also in the Battle of Maldon, where it is transcribed ærdon by Hearne. All editors except Thorpe, Müller, Grein, and Wülcker agree in reading ærndon. The context shows clearly that the word means 'rode (away)':

(of Godric) *he gehleop þone eoh þe ahte his hlaforð*

.
and his broðru mid him begen ærndon,
Godwine and Godwig. Maldon 189, 191-2

Laȝamon's usage: The weak ærnen, ernen is very frequent in the Brut. I have examined over 20 passages, and find that the word is: (i) coupled, apparently as a synonym, with *riden*; (ii) contrasted with *irnen*; (iii) used in places where the general context implies that it refers to men—generally 'knights' or 'earls'—on horseback; (iv) in a general sense of 'hasten, travel, go'.

(i) Coupled with *riden*: *heo riden & heo ærnden : forð mid Vortigerne*

II.147.20-1; *Her we wulleð wunien : wintres & sumeres . riden & ærnen : mid þan kinge Vortigerne* II. 189.16-19; . . . & *swiðe gon him riden . he ærnde* (MS. *ærde*) *to Glochæstre* II.217.1-2.

(ii) Contrasted with *irnen*, *eornen* (str. vb.): *Summe heo gunnen ærnen : summe heo gunnen urnen . summe heo gunnen lepen* II.615.19-21. (This is part of a description of various sports—foot-racing, horse-racing, etc.—engaged in by Arthur's court.) *Eorneð and ærne[ð] : and al þis lond bearneð*, and *alle þa men slæð : þe 3e cumeð neh* I.262.2-5. (With these passages cp. the OE contrast between *geierne* and *geærne* cited above.)

(iii) Passages in which *ærnen* is shown by context to refer to men on horses:

and he ærnde (MS. *ærde*) *to þon deore : and smat* (MS. *swat*) *hit a þan sweore.*

þat þe deor feol abac : and þe scæft al to-brac.

And þat deor up astod : and ræsde o þene stede.

and for-þat him þa breste : þan and þa senuwen.

þat þa lihte and þa liuere : feollen on eorðen I.277.2-11.

(This is the beginning of the fight between King Morpιδus and the monster which had come out of the sea.)

& Arður him seolf arnde : bi-uoren al his ferde II.467.15-16.

And æuere þa eorles : arnde biliues.

and æuere umbe stunde : bisezen heom bi-hinde.

and euere þa cnihtes of Rome : after biliue come.

And þer com [ane] aneouste : alre swiðest ærne III.54.1-8.

& lette enne cniht : ærne after an oðer eorle I.288.2-3.

See further I.396.17-18; I.399.14-15; III.59.8-11.

(iv) In general sense 'go, pass, hasten', etc., without specific implication of the mode of progress: *3eond þat lond he gon ernen : & þa tunen for-bearnen . & hergede þat lond : & tæh hit to his a3re hond* I.70.3-6; *lim heo gunnen bænnen : 3eond þat lond ærnen . & al wæst Walsce lond : setten a Vortigernes hond* II.223.20-3; & *nomen ænne sondes-mon : & senden toward Lunden . þat he swiðe sculde ærne : æfter Uortigerne* II.144.3-6; & *heo sulf mid ærhscipe : ærnden to heolde . & letten slæn heore folc* II.93.11-13; (King Aurilien) *clepede to his leoden : ludere stæuene . Ærneð æuere vorð & vorð : Hengest is ifaren norð* II.264.19-22; *þurh þat lond he ærnde : & hæ[r]3ede and hærmde* I.423.21-2; *3eond þat lond heo arnden : & slozen & barnden* II.99.14-15.

AT-ÆRNE 'to flee': *And þa eorles bi-uoren heom : aneuste at-arnden* III.59.20-1; (þa Romanisce men) *at-arnede ful sone : to þan kaisere* III.78.9-10.

FOR-ÆRNEN. Stratmann-Bradley has one reference only, from Robert of Gloucester (MS. Calig.), explained to mean 'ride hard'. In the Lazamon passage the word appears to be transitive, and the meaning is not clear. Does it mean 'hurry to the waters'? Perhaps *to* is omitted—MS. O. has *hernde to þe wateres*—or, if the reading in Calig. is correct, and the verb is really transitive here, can it mean 'reach the waters (= the sea, or some river ?) first'? Wanis and Melgan had been slain, and their host destroyed, and it was a question of intercepting the fugitives.

þa com hit to þan æuen-time : þa cleopeden þe æorl Costantin.

& bad þa wæi-willie : forærnen þa wateres.

& snelle men toward þære sæ II.112.15-19.

ATLEN 'to turn, go', from ON *ætla*; not in OE. Bradley gives a number of references to ME texts containing the word, which is also spelt *aht*-, *aght*-. Bradley gives the meanings as 'to think, esteem, purpose, arrange, set out'. He cites the passage given below (III.32.7-8) and translates the second half-line as 'let us turn to the king'. It appears to mean more exactly 'turn our attention to'. The base is evidently connected with that in OE *eaht* 'deliberation' etc., and the vbs. *eahtan* 'observe, judge', and *eahtian*, 'meditate'. The stages of meaning of *a(h)tlien* seem to have been—'to turn the attention to to turn to in physical sense, and finally, simply 'to go'. The two latter meanings are found in the Brut.

- (1) 'To turn the attention to':

Lete we nu þene eotend bi-lafuen : and atlien to þan kinge

III.32.7-8.

(This is the Poet addressing the Reader.)

- (ii) 'To turn to, direct one's course towards':—

we wulleð ouer al : atlien to þe seluen.

a watere and a londe : halden þe uor kinge III.163.23-164.2.

- (iii) 'to come, go, towards':—

Pelluz wes aneoste : & zemde þene nap.

Brien him atlede to : for he hafde him ful wa ido.

his pic he nom an honden : & heled hine under capen.

swa longe he gon atlen : þat he com him baften.

and imong al þa þrunge : þærsten him i þan ruge III.239.10-19.

BEZEN (once intrans. 'to go, come'). OE *bygan*, *began*, etc. 'to bow, bend, incline', etc. appears to be always transitive, and is used both in the physical sense of 'bending the knee', etc., and in the spiritual sense of 'inclining the heart' (*mod*), etc.

Laȝamon uses the word in the sense of 'bow, submit' (intrans.):—*Ah heo* (for *he*) *mot nede beien* : *þe mon þe ibunden bið* I.45.11–12; further (trans.) *Ah leoue sune Brennes* : *bei þi starke þonc . leie a-dun þin hære scrud* I.216.7–9. The exceptional usage is: *Scottes & Bruttes* : *beiden to-gaderes* . *Belin here læuerd* : *heom bi foren wende* I.220.21–4. (O. has *droȝe to-gaderes*. The meaning 'came together, assembled' seems certain in C. There is probably a transference of meaning here from the strong *buzen*.)

BUZEN 'to come, go, proceed; submit to; flee; bow, incline the head'. OE *bugan* 'to bend; bow down to (lit. and fig.); flee'. The general sense 'go, come' seems unknown in OE, although so firmly established in the usage of Laȝamon. Perhaps we may see the germ of it in such phrases as *Hi bugan þa fram beaduwe* Mald. 185, and *nele feor heonan / bugan fram beaduwe* Jul. 384–5. These might be rendered 'to turn away, or aside, from battle'. Again in Maldon 274–6: . . . *gylpwordum spræc / þæt he nolde fleogan fotmæl londes / ofer bæc bugan* 'turn or go back'. The word without qualification sometimes means 'flee' in OE: . . . *ac hy on holt bugon* Beow. 2598; and *þæt se byrn-wiga bugan scolde / feoll on feðan* Beow. 2918–19. But while we find in OE the sense 'give ground, turn or go away (from a fight)', we do not find, apparently, the meanings 'go or come towards, attack, go after, pursue', etc., nor the perfectly general sense of 'go, come' and so on.

Laȝamon's usage: I have examined thirty-two passages in the Brut in which the word occurs. In twenty-six of these I find the meaning to be 'go, come, proceed' either in the most general sense, or with a more particular implication of going towards in order to attack, of going after in pursuit, of going aside, withdrawing, of departing, and so on. In fact for *buzen* could be substituted such words as *gan*, *wenden*, *feren*, *liðen*, etc. In two passages the sense is specifically 'to flee away', in two 'to submit' (to one more powerful), and in one passage 'to bow, incline the head', etc.; in one passage the sense is 'lean, bend, towards' (a person).

I give a selection of the passages examined to illustrate the various uses.

(a) General sense, 'to go', etc. (intrans. or reflex.)

(i) 'To proceed from one place to another': *Heo iseizen Belin king* : *buzen ut of telde* I.229.19–20; and *heonnen he wule buzzen* : *into Bruttæine* I.254.19–20; *mid þe we wulleð buzzen* *ouer sæ to Brutlonde* (this was not in flight, but to carry on war) I.331.1 and 3; (*Arður isæh Colgrim*) *climben to munten* : *buzen to þan hulle* II.470.1–3; *forð he gan buzzen* : *þat he to burh com* II.173.2–3.

(ii) 'To march against, attack': *Anan swa heo iseizen Brennes : buze heom to-zennes* I.237.1-2; *Arður him to-zaines bah : mid hæhzere blisse* II.439.3-4.

(iii) 'To go aside, withdraw': *Buð* (for *buh* imperat.) *into bure : & let me bed makien* (Uther to Ygærne) II.375.8-9; *Ygærne beh to bure : & lætte bed him makien* II.375.14-15 (*him* refers to King Uther); *Lauerd Arður buh raðe : into þine bure . & þi quen mid þe* II.534.14-16; *And Cador þe kene bæh : in toward ane wude hæh* II.480.7-8.

(iv) 'To pursue': *And Bruttene king : sone him bæh æfter* II.31.17-18; *& Arður bæh æfter : mid sixti þusend cnihten* II.445.23-4.

(v) (Of a boat) 'to float away': (his men) *leten þene bat buzen : forð mid þan vðen* II.580.6-7.

(vi) 'To come together, foregather': *he & Borel þe eorl riche : buzen heom to-gæderes* III.73.3-4.

(vii) 'To approach': *Anan swa þat maiden hine i-sæh : sone heo him to bæh* III.237.12-13 (it was her brother disguised as a beggar).

(viii) 'To flee': *Allec heo slozen : mucche folc heo nomen . & sum onuæste bæh : into þere burh* II.22.17-19; immediately before this, the word is used meaning 'attack': *Bruttes heom buzen to : mid bittere ræsen* II.22.15-16; *þeos weolden heom iburzen : & bihalues fleon . & buzen ut of londe : to helpen heore liue* I.426.6-8.

(b) Other senses:

(i) 'To submit to': *faire he þe bisecheð : þat þu him to buze* II.290.7-8; *for no scal hit nauere iwurðen : . . . þat we auere buzen : Austine þan uncuðen* III.193.11 & 13-14.

(ii) 'To bow, incline the head or body to in greeting': *& he to þan kinge bæh . mid mildere spæche : his lauerd he gon greten* II.131.6-8.

(iii) 'To lean towards, bend forward': *& he bah to þan kinge : alse mon dæð of runinge* II.117.2-3 (this was a traitor who tried to stab the king).

CHARREN 'to turn, go, turn aside, away, towards' etc.; 'to return'. OE *cirran*, *cerran*; also *a-*, *on-cirran*, in the same senses: . . . *Cirdon cyne-rofe / wiggend on wiðertrod* Jud. 312-13; . . . *ne on lyfte fleg / ne under bæc cyrde* Riddles 22.16-17; *syððan þeod-cyning þyder oncirde* Beow. 2970; *eorl Ongenþio ufor oncirde* Beow. 2951.

Lazamon uses the word in various slightly different senses easily determinable from the context. It is used by him only intransitively or reflexively, and always of physical movement: *seoððen he hafde iurwenen Gascunne : he charde azen into Burgunne* I.308.21-2; *Dis isæh Childric : & gon him to charen . & beh him ouer Auene : to burzen him seoluen* II.469.8-11; (*þat isæh Meleon*) *and from his iueren cherde : and fleh to are chirche*

III.150.6-7; *And he heom ureoizen lette : and fulluht on sette . and charde aȝein sone : eft into Rome* III.182.9-12 (this refers to Pope Gregory and his dealings with the English slaves).

CREPAN 'to creep', etc. OE *crēopan*. The verb is employed in OE in the same senses as at present—to move along haltingly, timidly or furtively (of men, etc.), and (of reptiles) to move along near the earth, as contrasted with going on foot. The only poetical reference containing the word given in the Dictionaries: . . . *Creopað and snicað / eall lichoman eorðan getenge* Metr.xxxi. 6-7. (This poem enumerates the various modes of progression among different species of living creatures.)

Lazamon's usage: When applied to human beings the word expresses the limping, furtive movement of wounded or frightened men.

(i) *Al Cador awælde* (sic, = either *auælde* 'felled', or *acwælde* 'killed') : *þat he quic funde . and summe heo crupen : into þan wude . and alle he heom fordude* II.484.23-485.1; *adun rihtes slozen : al þat heo neh comen . Summe heo crupen to þan wude : an heore bare cneowen* II.351.5-8; *þe king him gon crepen : an heonden and afuten . swulc he mid unsunde : al uorwunded weore* III.174.17-20.

(ii) (Of worms): *(he cuð) of þan uisce þer heo wlæt : and of wurmen per heo crepe* III.224.17-18.

(iii) (Of sparrows creeping under the eaves): *Anan swa þet fur wes hat : swa þe sparewe innere crap* III.173.89 (burning substance had been fastened to the birds' feet).

AT-CREPEN 'to creep away, escape': *heo wenden seoð-ðen þa muntas . and qualden alle þa ilke : þa aniht weoren atcropene* I.241.19-21. (Madden queries whether *zeond* should not be read for *seoððen*.)

DRAȜEN 'to pull, draw; to draw near; withdraw, go', etc. OE *dragan*. The OE verb is of comparatively rare occurrence. In prose it is chiefly transitive, and has the senses 'drag, drag along', and so on, also 'to drag oneself'. The Dictionaries give only two references to this word in poetry. They are:

(i) intrans. 'to go':

*Drogon deor-mode æfter dun-scræfum
ymb stan-hleoðe stærced-ferhþe
efne swa wide swa wegas lagon* Andr. 1232-4.

(ii) trans. 'to go, pursue one's way':

. *Ongon þa leofne sið
dragan dom-eadig dryhtnes cempa
to þam onwillan eorðan-dæle* Guth. 698-700.

Bosworth includes this passage, together with the former, under intrans. usage, but Toller corrects this in the Supplement, and puts it with other passages which exhibit transitive usage, though in these the verb has the more ordinary sense of 'to pull, drag', etc.

Lazamon's usage:

(i) trans. (a) 'to drag, trail after': & *doð wiððe an his sweore : & drazeð hine to ane more* II.536.7-8; *Moni þusend þer flowen : þærnes heo drozen* I.35.15-16.

(b) 'to draw an arrow in shooting': *þa þat iherde his kun : þe he of icumen wes . þat he þe flo heuede idrawen : & his fader ofslawen* I.14.18-21 (refers to Brutus who meant to shoot a stag).

(c) 'to pull out': *ne mihte he þat sweord ut drazen* I.322.3 (the sword of Julius Caesar which had stuck fast in the shield of Nennius).

(d) *to-drazen* 'to tear asunder, tear in pieces': *þa quenen lude lozen : & al hine to-drozen* II.113.7-8; *Sum ure cun heo hadden islazen : and sum mid horsen to-drazen* II.630.8-9.

(ii) intrans. 'to approach, come; draw away, depart', etc.: *alle he wulleð to me drazen : to quellen þa ut-lazen* II.14.7-8; *he drowen toward hauene* I.57.1; *and after þan Alemainen : þe weoren awei idrazene . þa weoren to wude iwende* II.342.15-7; & *after heo drozen : & swuðe heom slozen* II.100.23-101.1; *Ich & þas tweie cnihtes : leopen ut of þan fihte . and hider in we beoð idrazen* II.381.8-10.

(iii) Reflex. 'to betake oneself': & *þes duc mid his drihte : to þare sæ him droh* I.5.12-13; *He nom his folc & ferde forð : & droh him ri[h]tes norð . a ðas half Scotlonde : þer he wolde at-stonde* I.112.19-21.

FUSEN, IFUSEN intrans. and trans. 'to hasten, go; get ready (to go, etc.); to drive, lead', etc. OE *fysan* is used in the same general sense, but has some shades of meaning which do not appear in Lazamon. The verb in OE is used intransitively, transitively, and reflexively.

(a) intrans. 'to hasten, go': *Ongan þa ofstlice eorla mengu / to flote fysan* Elene 225-6; . . . *þa sio cwen bebead / ofer eorlmægen aras fysan / ricene to rade* Elene 980-82.

(b) trans. (i) 'to urge, incite': . . . and *þu here fysest / feðan to gefeohte* Andr. 1187-8.

(ii) 'to inflame, inspire': *þa wæs hring-bogan* (i.e. the dragon's) *heorte gefysed / sæcce to seceanne* Beow. 2561-2; *He* (i.e. Beowulf) *þæt ful geþeah / . . . / ond þa gyddode guþe gefysed* Beow. 628, 630.

(iii) 'to drive': *fyre gefysed* Beow. 2309.

(iv) 'to let fly' (arrows): *Ac he fysde forð flan genehe* Mald. 269.

(c) Reflexive. (i) 'to prepare, get ready': (*ic biddan wylle*) . . . *þæt ge recene eow / fysan to gefeohte* Jud. 188-9.

(ii) 'to prepare to go; to go; to hasten': *Ongan hine þa fýsan & to flote gyrwan* Andr. 1698; *Gæst hine fyseð / on ecne geard utsipes georn* Guth. 1240-1.

Lazamon's usage: *Fusen* is one of the most frequently used verbs of motion. I have examined over forty passages in which it occurs, but shall only quote a representative selection. By far the greater number of the passages show an intransitive use, and it is generally impossible to say whether haste is implied or not. In passive constructions the OE non-material senses 'urge, incite, inspire', etc. seem absent. Reflexive use is comparatively rare.

Since the intransitive use is the most common, we begin with this. (N. B. Bradley gives five references to *fusen* in Lazamon, one being reflexive, and one, also in Lazamon, to *ifusen* (intrans.). He mentions no other ME text as containing either word.)

(a) intrans. (i) In general sense 'to go, come, depart', etc. (of individuals and armies, etc.): & *he lette fusen þar to : muchel of his folke* I.88.6-7; *Cnihtes fuseð me mid : leteð slæpen þene king* I.32.1-2; *Heo fusden* (MS. -em) *from stronde* I.7.20; *he fusede mid monschipe : toward Margane his mæie* I.164.2-3; *An horsen & on foten : forð heo ifusten* I.22.12-13; *Nu Vortiger is iuaren : alle we mote fusen* II.141,15-16; *þat forð I scal fusen : to uerde þas kinges* II.368.20-1; *Forð he i-uusde : & into Rome ferde* II.12.17-18; & *swa heo wolden fusen : in touward France* III.39.19-20; *And Arður to scipe fusde* (MS. *fusen*) : & *alle his uerde* III.131.6-7; *Forð heo iuusden : vnimete uerden* III.158.21-2.

(ii) In the following there appears an implication of haste: *Leou war fuseð Childric : & fleon wule of londe* II.481.5-6; & *heo hem to fusde : monie to fulste* I.322.6-7; *Nu fuseð heom to swiðe : fulste eou drihten* II.396.20-1; *And Frolle him to fusde* (MS. -en) : *mid his feond ræse* II.584.5-6; & *we þe scullen fusen to : swa we hit swiðest mæzen don* III.23.17-18 (Bedevere was to summon Arthur and his men by blowing a horn if he wanted help.)

(iii) (of a boat) 'to float, drift, away': (*his men*) *lette þene bat fusen : forð mid þan vðen* II.580.18-19.

(iv) (of arrows) 'to fly: & *he lette fuse him to : flan swuðe kene* I.276.16-17 (cp. the trans. use of *fýsan* in OE under (a) iii, above).

(v) 'to move rapidly': & *seoððen þa uustes : uusden to sweoren* II.534.4-5 (a strange expression, describing a 'rough house'; = 'hands (lit. 'fists') flew to throats').

(b) trans. Used in various senses; 'drive, urge on, lead, carry, set up', etc.

(i) 'to drive out, or away': *and his azene heredmen : hine to deaðe*

hateden. *Neoðeles onende : þat folc of þissen londen . fusden hine & flæmden : feor of þissen ærde* I.293.10-15; & *3ef he wille henne faren : fuse we hine sone* I.144.14-15 (= 'let us pack him off at once'); *Lot we scullen fusen : & flemen of londen* II.551.15-16; & *far to ure feonden : & drif heom of ærde . oðer þu heom fusen : oðer þu heom feolle* II.314.16-19.

(ii) 'to lead': *swiðe he fusde þider ward : kene his ferde* I.713-4; *Brutus nom al his zunge folc : & hem to scipe fusede* I.64.18-19; perhaps also in: *3ærwes wes þat ferde : & forð warð ifusede* I.212.14-15.

(iii) 'to thrust, hurl': *Corineus hine fælde : & hine fusde mid mæine . aduneward þa clude : þat his ban to-cluuen* I.81.17-20 (this was the end of the struggle with the giant Geomagog).

(iv) 'to carry away': *pene drinc & þene mete : þe heo þer funden . to heora scipe heo hit fusden* I.55.21-3.

(v) 'to set up, rear':

Leteð up fusen : heze forken.

& bringeð her þa 3æsles : biforen ure cnihtes.

& heo scullen hongien : on hæze treowen II.462.9-14.

(c) Reflexive. (i) 'to get ready, prepare oneself': *Forð com Corineus : & fusde hine sulfne . & þe eotend al swa : þat alle hig bi-heolden* I.79.12-15.

(ii) 'to go, betake oneself, hasten': *and fus þe to þan feonde : and bigin to fihten* III.23.15-16; *and þe king Penda : wide gon sende þa . and sum[n]ede uerde : and forð him fusen* (sic MS.; either supply *gon* before *fusen*, or read *fusde*). & *wenden to Exchastre : mid unimete genge* III.242.14-19.

GLIDEN 'to glide, flow, roll; move easily and gently along; fall; fly'. This verb is used both in OE and in the Brut with very much the same implications of easy, sliding motion as at present, though in some of the passages cited from both, we should now be inclined to render the idea conveyed by *glidan*, *gliden*, by a different verb. The principal uses in OE poetry are:

(i) (of a ship): *is se bat ful scrid*

færeð famig-heals fugele gelicost

glideð on geofone Andr. 396-8.

(ii) (of men swimming): *þa git on sund reon*

þa git eacor-stream earmum þehton

mæton mere-stræta mundum brugdon

glidon ofer gar-secg Beow. 512-15.

(iii) (of a fish): *horn-fisc plegode*

glad geond gar-secg Andr. 370-1.

(iv) (of the morning star):

Is se forrynel fæger ond sciene
cymeð eastan up ærror sunnan
ond eft æfter sunnan on setl glideð
west under weorulde Metr. xxxix.25-8.

(The fore-runner of the sun is *an steorra þone monna bearn morgenstiorra hatað.*)

(v) (of the sun):

Syððan heofones gim glad ofer grundas Beow. 2072-3

. sibban sunne upp
on morgen-tid mære tungol
glad ofer grundas Brunanb. 13-15.
. þonne wafum strong
fugel feðrum wlonc
. locað georne
hwonne up cyme eastan glidan
ofer sidne sæ swegles leoma Phoen. 99-103.

(vi) (of the yolk which can slip and glide about in the egg; the whole passage runs):

Hwæt! hi þeah eorðlices auht ne haldeð,
is þeah efneðe up and of dune
to feallanne foldan ðisse
þæm anlicost, þe on æge bið
gioleta on middan glideð hwæðre
æg ymbutan Metr. xx.166-171.

(vii) *to-glidan* (This compound expresses a far more violent movement than the simple verb—the splintering of a helmet in battle as a result of the *feorh-sweg*): *guð-helm to-glad Beow. 2487. Cf. El. 1268-9.*

LaȜamon's usage: None of the passages in the Brut corresponds exactly to any of those quoted to illustrate the use of *glidan* in OE poetry. In one passage (iv. b.) the word appears to be used in the perfectly general sense of 'go'. The kinds of movement expressed are:

(i) (of weapons flying through the air): *Heo letten to gliden : gares swipe scarpe I.74.19-20; Cnihtes gunnen riden : gæres gunnen gliden II.397.1-2; gæres heo letten gliden II.245.3; On he sette ane fla : & he feondliche droh . & þa fla lette gliden : bi Corineus siden I.62.11-14.*

(ii) (of the fall of men in battle): *leteð* (imperat.) *þa Grickisca : gliden to grunde . fallen þa feie I.34.21-3.*

(iii) (of flowing, rolling of liquid);

- (a) (of a river):

zif he his neb wendeð : touwærd þan mære.

. : *ful wel he beoð iborzen.*

þat water him glit bisiden : and þe mon þer wuneð softe

II.502.2-7.

- (b) (of tears):

þe king gon siche ('sigh') sare : him gunnen glide teores.

& urnen his æzene II.108.23-109.2.

- (c) (of molten lead):

Ofte heo letten grund-hat læd : gliden heom an heore hæfd

I.242.19-20.

- (iv) (of human beings);

- (a) 'to move in a stately procession':

Æuer tweie and tweie : tuhte to-somne.

ælc mid his honde : heold his iuere.

and gliden ouer ulore : biuoren Arðure II.617.24-618.5.

- (b) 'to go, march, behind a leader':

Octa him ut ræd (= rad) : & mucche folc him after glæd.

mid balden his beornen II.395.14-16.

- (v) (figurative; of the gradual coming of the end of life):

þa com þe time gliden : þa ælc monne abideð.

þat Corineus þe stronge : makede his liues ende I.102.23-103.2.

TO-GLAD 'reached, penetrated':

to him he gon riden : & smat hine i þere side.

þat þat spere þurh-rade : and þa heorte to-glad II.334.11-14.

HIZIEN, HÆIZIEN 'hasten, go'. OE *higian* means primarily 'to strive, strive towards or after'. The sense 'go, hasten' is very rare. The development of meaning seems to be—'to strive after, strive to obtain, or to reach'; thence 'press towards', and finally, 'to hasten, go towards'. The word is used chiefly in a non-material sense in OE, rather of mental or spiritual desire or tendency, than of physical movement towards. The only passage in which *hizian* occurs in OE in an undoubted and quite specific physical sense is cited by Toller in his Supplement: *he higode to þære stowe* Greg. Dial. 19.20.

The nearest approach to the later meaning in Bosworth-Toller is: *ðonne se ðe swa higeð to andweardnesse his Scippendes*, from Cura Past. 87.10 (Sweet). This is clearly not a bodily movement. The only poetical passage referred to by Grein in which *higian* has a sense somewhat approaching, but by no means identical with, that in Lazamon, is:

. . . . *ælc gesceaft ealle mægene / . . . wriȝað and higað / wið his gecyndes, cymeð to ðonne he mæg* Metr. 13.64-6.

Lazamon uses the word pretty much in the sense of the modern *to hie*:

*Belin an halue : hæizede him to-zeines.
muchel æie wes þære : vnder þan wude of Kalatere.
þer heo heom imetten* I.201.23-202.4.

*Alle heo(m) hizeden to : an elcher halfe.
& to-deleden heom atwa : teona wes on hirde* I.98.13-16.

In the following passage the word does not occur in MS. Calig., but appears in O: *He fusde his ferde : & flæh toward Scotten.* O reads: *He hizede swiþe & wende toward Scottes* II.256.19-20.

The phrase *an hizende*,—*hizinge* 'in haste' which is found several times in the Brut, occurs on the same page a couple of lines below the above: & *Aurilie þe king : æfter him uerde an hizinge* II.256.21-2. Here we have evidently a verbal noun. In other passages the form appears to be a present participle: *And Arður him swende to : an hizende mid his sweorde* III.34.18-19.

IRNEN, EORNEN 'to run' in various senses. OE *irnan*, *yrnan* 'run, flow, pass'. In OE the word, if used of men, implies 'running on foot' (see also remarks under *ÆRNE* above). It is also used in various other ways, and of inanimate objects.

(i) (of men):

Weras wif somod *wornum and heapum*
ðreatum and ðrymmum *þrungon and urnon* Jud.163-4.

(ii) (of water):

he (= a river) sceal yrnan forð Ridd.84.5.

. *Fægere leohte*
þæt liðe land *lago yrnende*
wylleburne Gen. 210-12.

swa oft æsprynge *ut awealleð*
of clife harum *col and hlutor*
and gereclice *rihte floweð*
irneð wið his eardes Metr. 5.12-15.

(iii) (of darkness):

. *him arn on last*
þrang þystre genip, *þan þe se þeoden self*
sceop nihte naman Gen. 138-40.

(iv) (of heavenly bodies):

. *wer-ðioda his*
noman onwendað, þonne niht cymeð
hatað hine ealle æfen-stiorra.
Se bið þære sunnan swiftra : siððan hi on sell gewitað
of irneð (þæt is æbele tungol) Metr. 29.28-32.

(v) (of time):

Ðær se eadga mot.
.
wunian in wonge, oþþæt wintra bið
þusend urnen Phoen. 361-4.

Lazamon's usage: The word when applied to human beings implies rapid movement on foot as contrasted with mere walking on the one hand, or riding on the other; it is also used of a horse. It further expresses the flowing of water, of tears, and of blood, and finally the movement of a garment in slipping from the wearer.

(i) (of human beings) 'to run': *þa com þer a mon irnen : from þan twam eorlen . þe brohte writ-runen : in to þere burh of Rome I.245.6-9; (þa cleopede þer a læche) . . . to ane bur-cnihte : and hahte hine forð rihtes . irne to þere welle : þe wes on væst þere halle II.405.8-13; . . . Bruttes gunnen irnen . heo leopen ut of walle : & me heom sloh alle III.174.2-4; & him abuten urnen : cnihtes swiðe sturne . alse heo wolden mid heonden : al hine to-heowen I.287.6-9; Vfenen heo him orn : bi-twixen hire ærmes heo hine nom . ofte heo hine clupte I.213.18-20; he orn him to-ænes : beiene heo uæineded þas . heo clupten heo custen : and cuðliche speken II.365.11-14.*

For lines in which this verb, in the sense of 'run races', is contrasted with *ÆRNEN*, see the latter above, No. ii.

(ii) (of a horse) 'to gallop': *his hors he lette irnen : þat þe eorðe dunede II.467.21-2.*

(iii) (of ships) 'to be driven, sail rapidly': *scip ærne (for arn) to-zen scip : þa hit al to-wonde to scifren I.193.18-19.*

& ferde riht on his wei : his scipen runden (= urnen) swiðe I.57.19-20 (0 hurnen swiþe).

(iv) (of waves) 'to be violently agitated, to rage': *þe wind com on weðere : & þa sæ he wraðede . vðen þer urnen : al se tunes burnen I.195.10-13. (See also identical lines II.74.23-4.)*

(vi) (of blood) 'to run, flow': *þat blod orn adun : ouer al his breoste II.584.19-20; urnen stremes of blode III.105.16.*

(vii) 'to run with blood': *brokes þer urnen : mid unimele stremen . of*

bloden þan rede III.255.8-10; *Vrnen þa streten : mid blod stræmen* III.62.17-18.

(viii) (of tears) 'to flow': *Vrnen ire teares : ouer hires leores* I.216.15-16; *him gunnen gliden teores : & urnen his æzene* II.109.1-2; and *Brien gon to wepen . urnen þa teres* III.214.21-2.

(ix) (of a coat of mail slipping off): *he lette his burne : of his rugge eorne* I.397.14-15.

BI-EORNEN trans. 'to run round; to surround'. OE *be-irnan* has the sense 'to come into, occur, to the mind', as:

. *Him on mod be-arn*
þæt heal-reced hatan wolde
medu-ærn micel, men gewyrcean Beow. 67-9.

This compound occurs only three times in the Brut, and in entirely different senses from the above.

(i) 'to run round': *And Arður aneouste : þæt treo bieorn abute. And swa Arður & þe scucke : biurnen hit þreie a-buten* III.35.5-8.

(ii) 'to surround, encompass': *þæt lond is bi-urnan : mid þære sæ* I.52.24.

IWITEN, WITEN 'to depart; to go, proceed (in particular direction); to die'. OE *gewitan* in same senses. The OE verb. is often accompanied by a reflexive dative. The constructions are various.

(i) Followed by an infinitive

(a) of verbs of motion:

. *oð þæt beorht gewat*
sunne swegel-torht to sæll glidan Andr. 1247-8.

Danon eft gewiton eald-gesiðas,
swylce geong manig
. mearum ridan Beow. 853-5.

. *Donne wabum strong*
west gewiteð wintrum gebysgad
fleogan feþrum snel Phoen. 161-3.

(b) followed by inf. of other verbs:

Gewat ða neosan, syþðan niht becom
hean huses Beow. 115-16.

. *Him þa gyt gewat*
Abraham eastan eagum wlitan
on landa cyst Gen. 1793-5.

. *gewat him on nacan*
drefan deop wæter Beow. 1903-4.

(In the following, *gewat* has the specific sense 'departed'.)

Him ða Scyld gewat to gescæp-hwile
fela-hror feran on Frean wære Beow. 26-7.

(The force of *gewitan* in these passages, and many others of similar construction is often very slight; the action is expressed by the following verb, and *gewitan* here is often not very specific, pretty much like *onginnan* . . . *ongan him winn up ahebban* Gen. 259, etc., etc., or like Mod. Engl. *go in go and play, go and ride round the field*, etc., etc.)

(ii) followed by preposition or adverb, or absolute:

(a) 'to depart; go in specified direction': *flod ut gewat* Mald. 72;
 . . . *cing ut gewat / on fealone flod* Brunanb. 35-6; . . . *him*
him on bearme læg / madma menigo, þa him mid sceoldon / on flodes æht
feor gewitan Beow. 40-2; . . . *þanon eft gewat / huðe hremig* Beow.
 123-4; *gewat ofer wæg-holm winde gefysed* Beow. 217; *Ða him Hroþgar*
gewat . . . / eodur Scyldinga ut of healle Beow. 662-3.

(b) Specif., 'to depart from life': *þær se geonga gewat / on þone*
eahtoðan dæg Eadgar of life Edgar 8-9.

(iii) the verb used absolutely, 'to die': *Noe . . . see niððum*
ær / land bryttade siððan Lamech gewat Gen. 1235-6; . . . *op hund*
cnea / wer-þeoda gewitan Ruin 8-9; *Malalehel / wæs æfter Jaredede yrfes*
hyrde / fæder on laste, oðþæt he forð gewat Gen. 1066-8.

(iv) 'to pass, pass away': *swa þeos woruld eall gewiteð* El.1277;
 . . . *landes frætwe / gewitaþ under wolcnum winde gelicost* El.1271-
 2: *gedroren is þeos duguð eal, dreamas sind gewitene* Seaf. 86; *se deorce*
niht won gewiteð Phoen. 99.

(v) 'to move, proceed, go': . . . *storm up gewat / heah to*
heofonum Ex.459-60; *þær se sweta stenc / ut gewiteð* Whale 56-7; *ðonne*
semninga on sealtne wæg / mid þa noþe niþer gewiteþ / garsecges gæst,
grund geseceð Whale 27-9.

Lazamon's usage: This is very much that of OE; but the construction seen above in (i) a and b is absent; the verb seems not to be used with a reflexive dative, and the sense in (iv) is not found. The meanings are as follows:

(i) (a) 'to depart, go from one place to another': *ah sone he þonene*
iuatte :forð azein mid þan winde I.11.6-7; *Wes i þere ilke wike :þe*
ærchebiscop forð iwiten . nes þer nan biscop : þat forð on his wæi ne scoc
 II.129.5-8; *Summe to þere sæ iwiten : & leoppen in heore scipen* II.335.23-
 336.1

(b) specif., 'to go from this world' (cp. (ii) b above): *þus seiden Mærlin : & seoððen he sæt stille . also þeh he wolde : of worlden iwiten* II.298.10-13.

(ii) 'to die': *al þat he mid þan sweorde smat : þerriht hit iwat* I.322.22-3; *æwere wulcne swa he smat : þer forð rihtes he iwat* I.216.17-18; *& smat hine þurh mid þan spere : swa he ispited weore . & bræid to him þat spere : þe gume iwat sone* III.54.19-22; *And seoððen þu scalt iwiten : & faren to heofne-richen* III.290.20-1.

(iii) (a) 'to move in a particular direction, to go' (cp. (v) above): *& þer weoren in ane loken : fif hundred gaten . þe wulf heom to iwiteð : and alle heom abiteð* II.471.5-8.

(b) specif., 'to go down, fall': *and þene beore he ismat : þa he to þere eorðe iwat* (MS. *iwhat*) III.16.4-5 (O has *þat he fulle to grunde*); (of Arthur) *and up ahof his gode brond . and þat þih him of-smat : & eotend adun wæt* III.35.12-14.

(iv) (of food) 'to disappear, be exhausted' (the nearest to this in OE is seen under (iv) above):

I þon castle weoren monie men : & muchel mete þer bihofede.

þe mete forð iwat : for þer fengen feole to I.28.20-3.

LEPEN, LEOPEN, A-LEPEN, 'to leap, run', etc. OE *hleapan*. The OE verb expresses impetuous, rapid, motion, 'rushing', not necessarily 'leaping' in the more restricted sense. The following illustrate the chief uses in poetry.

(i) 'to move rapidly, gallop, run':

werod wæs on tyhte

hleopon horn-boran, hreopon friccan
mearh moldan træd El. 53-5.

Hwilum heaþo-rofe hleapan leton
on geflit faran fealwe mearas Beow. 865-6.

(ii) 'to dance'. This seems to be the sense of *se þa hleapeð* Fates of Men 83. But the reading of the first part of this line, and that of *neomegende* in 82 are doubtful.

For *hleapan* in prose the Dictionaries give the meanings 'leap (like a hart); leap upon a horse; rush, break into': *se hleop into þam castele* Peterb. Chron. Ann. 1087; 'escape': *hlupon ut* Chron. Ann. 1072, and so on. *Ge-hleapan* is used transitively, 'leap upon, mount': *gehleop þone eoh* Mald. 189.

LaȜamon's usage: This word, *lepen*, etc., like many others, is of far more frequent occurrence in the Brut than in OE prose or poetry. It

always implies rapid or violent motion when used of men. It is used also of animals, and of water.

(i) (of men);

(a) 'to rush at, attack': & *towardses Numbert he leop : swilc hit a leon weora* I.62.17-18; *Belin heom to leop : bi-foren & bi-hinden . þeo cnihtes weoren vnwepned : þa þe wæne heom wes zeueðe* I.241.2-5; *Heo tuzen alle to-gadere : treon swiðe muchele . & leopen to Brutus folke : þer heo hurtes duden* I.78.6-9 (this refers to the giants); *Sezes him leoppe to : & wolde þene king fordo* II.217.16-17; & *Bruttene king : bæh to þæn castle . & lætte to læpen : alle þa Brut-leoden* II.24.11-14.

(b) 'to leap to arms':

Luces þis iherden : þe kaiser of Rome.

and he leop to wepne : swulc hit a liun weore III.70.16-19.

(c) 'rush towards, hurry up to':

. he leup to þan dæde king.

igrap his stede : & alle his iwede I.398.6-8.

(This was the king's brother who wanted to conceal the king's death from the army.)

þer weoren men Romanisce : reouliche atogene.

zif Arður ne leope to : swulc hit a liun weore II.622.4-5.

(Arthur intervenes to prevent the slaughter of the Romans.)

(d) 'to hurry away, escape':

Ich & þas tweie cnihtes : leopen ut of þan fihte.

and hider in we beoð idrazen II.381.8-10.

(e) 'to spring, jump out':

. Bruttes gunnen irnen.

heo leopen ut of walle : & me heom sloh alle III.174.2-4.

(f) 'to leap on board':

summe to þere sæ iwiten : & leoppen in heore scipen II.335.
23-336.1.

(g) 'to leap in competition':

summe heo gunnen ærnen : summe heo gunnen urnen.

summe heo gunnen lepen : summe heo gunnen sceoten II.615.19-22.

(h) 'to jump up, rise':

þa lep mi fader up : swulc hit an liun weore.

& wið-seide þen cure : bi-foren ure kinge II.58.2-5.

Ofte heo luten adun : alse heo wolden liggeren.

Ofte heo up lupan : alse heo fleon wolden I.80.4-7.

- (i) 'to leap on a horse, mount':

leoup he an his stede : & bihælues he gon riden I.396.5-6.

Childric and his ohte men : leopen heom to horsen II.467.3-4.

- (ii) (of animals);

- (a) (of wolves) 'to spring at, or upon':

He bi-com in a bæch : þer he bale funde.

Vppen ane weorede : of wlfan awedde.

Heo him to lupen : on alchere halue I.110.5-10.

(See also the lines under (a) and (c) above when men are said to 'leap like a lion'.)

- (b) (of horses) 'to prance along':

steden lepen : sturedede þa eorðe III.90.18-19.

- (iii) (of a spring of water) 'to gush out':

Up he læc þene staf : þat water þer after leop.

þe uezereste welles stream : þe irneþ on uolden III.189.15-18.

- (iv) (of waves or waters of a lake) 'to dash, leap, overflow':

þenne swelleð þe mære : & swærkeð þa vðen.

vðen þer leppeoð ut : vnimete grete.

fleoð ut a þat lond II.501.18-22.

A-HLEAPEN. This is the only compound form of the verb which occurs in the Brut. In OE *āhleapan* is intransitive and differs but little in meaning from the uncompounded verb: (i) 'to start up, leap up, rouse oneself': *Ahleop ða se gomela gode þancode / . . . þæs se man gespræc* Beow. 1397-8 (said of Hrothgar when he has listened to the encouraging speech of Beowulf and prepares to start for Grendel's lair).

- (ii) 'to leap down':

. . . . of wealle ahleop

frod fyrngeweorc, þæt he on foldan stod

stan from stane Andr. 736-8.

(This refers to the stone statue that leaps from the wall.)

- (iii) 'to advance, press forward':

ahleopon hild-frome heriges brehtme

and to weall-geatum wigend þrungon Andr. 1202-3.

Ahlepen occurs only once in the Brut, and it seems to mean 'to start up' and actually 'to go out (of the ship), go ashore'. (The passage refers to King Brien who was in the habit of taking many tuns of wine with him on his sea-voyages, and of selling it. It is said of him that he behaved in all respects as though he were a merchant.)

In he wende at Barbefleot : and at Suðhamtune up a-leop.

þer he ut drazen : win of his tunne.

and hendliche hit delde : alle þare duzeðe.

þa him abuten weore : riche and henen III.232.14-21.

LIDEN 'to travel; to go, proceed, etc.; to depart; to float; to fly through the air'. OE *liþan* is more frequent in poetry than in prose. In both *liþan* is used more commonly in reference to travel in a ship than in the general sense of 'go, pass, etc.' As regards prose, Bosworth-Toller, and Toller in the Supplement give between them three references to the word in the OE Bede, two in Gregory's Dialogues, and one to a passage in Cockayne's Shrine. In all these passages except one *liþan* is used of journeying on the sea. Turning to the use of the word in OE poetry, we find that Grein has ten references to *liþan* and six under *gelipān*. Among the latter are some past participle forms which are naturally indistinguishable from those of *liþan*, and several of which seem more probably to belong to this. There is a distinction in usage between the two words—*liþan* more often expresses the idea of traversing, sailing upon the sea, whereas *gelipān* has the more general sense. The past participle *geliden* occurs in three of the passages referred to by Grein under *gelipān*, and as all of these express the sense of crossing the sea, they may just as well come from *liþan*. The compound *ofer-liþan* is cited only once by Grein: *niwe flodas Noe ofer-lad* Exod. 362. The specialization of meaning seen here, and in the derivatives *lid* 'ship' and *lida* 'sailor', *lid-man* 'sailor', *lid-weard* 'ship's captain', and *lidwerig* 'weary from sea-travel', is absent in **be-liþan* (only in past participle) 'forsake, relinquish'.

The following illustrate *liþan* in OE.:

(i) 'to travel by sea, to voyage, to float':

wiht cwom æfter wege *wrætlicu liþan*

cymlic from ceole Ridd. 34.1-2

leolc ofer lagu-flod *longe hwile*

on swon-rade *swylt ealle fornom*

secga hloþe, ond hine sylfne mid,

ær þon hy to lande *geliden hæfdon* Jul. 674-7.

Hwanon comon ge *ceolum liðan* Andr. 356.

Nu is þon gelicost *swa we on lagu-flode*

ofer cald wæter *ceolum liðan* Chr. 851-2.

(*Anlizes*) *com ane to / ceole liðan* Metr. 26.61-2.

to hyðe hringed stefnan
of lagu-fæsten geliden hæfdon El. 48-9.

ða liðende land gesawon
brim-clifu blican beorgas steap
side sæ-næssas; þa wæs sund liden Beow. 221-3.

(Note the exceptional transitive use of the verb in the last line. See also a similar construction below under Lazamon's usage vii.)

þa þe sæ seceað, mid scipe liðan Ps. 106.22.

(ii) 'to travel through the air, fly' (of the dove returning to the Ark):

heo feðera onsceoc, gewat fleogan eft
mid lacum hire, liðend brohte
ele-beames twigan to handa Gen. 1471-4.

(iii) 'to undergo loss':

. Beam sceal on eorðan
leafum liþan, leomu gnornian Ex. Gnom. 25-6.

GELIDEN on the other hand has a less specialized usage:

(i) 'to pass away' (of happiness):

. nu synt gear-dagas
æfter fyrst-mærce forð gewitene
lif-wynne geliden El. 1267-9.

(ii) 'to pursue a course through space' (of heavenly body):

mænig tungol maran ymbhwyrft
hafað heofonum, sume hwile eft
læsse geliðað Metr. 28.20-3.

Lazamon's use of the word: The C text of the Brut makes frequent use of *liðan*. Madden's Glossary has about sixty-seven references. This is something like three times as many occurrences in this single text as all the examples recorded by the Dictionaries from the whole of OE poetry and prose. The later text usually avoids the word, and substitutes *gan*, *wenden*, *seili*, *passi*, etc., or omits the passage altogether. Of the passages referred to by Madden I have examined fifty-eight. In the passages here collected LIÐE is used, if I have counted aright:

(a) in specific sense of going over the sea, 18 times; (doubtful two not counted here);

(b) in general sense of 'go, come, arrive, depart, advance', etc. (on land) 36 times;

(c) other special uses, twice.

The great frequency with which the word is used by *Lazamon*, if, indeed, as seems reasonable, we may attribute to the author himself so marked a feature in the older MS., is the more remarkable when it appears that *Stratmann-Bradley* has no references at all to the word in the whole of ME literature apart from the *Brut*, except in the *Ormulum*. In *White's Glossary* of this text there are only two references to the word, both occurring within sixty lines. In both the word has the most general sense of 'go, journey' (by land), and refers to *Joseph's* flight into Egypt with Christ and his mother:

& he ne durste nohht forþi
Inntill þatt ende liþen Orm 8373-4.

þurh þatt ne mihhte nohht Josep
Inoh wel unnderrstanndenn
Intill whillec ende of all þatt land
He badd himm þanne liþen
& forrþi wolde he faren þa
Wipþ Christ & wipþ hiss moderr Orm 8431-6.

Passing now to *Lazamon's* usage, it will be desirable to quote pretty fully the group of passages coming under headings (a) and (b). (Note occasional weak preterites.)

(a) Specifically of men travelling by ship, and of the ships themselves:

He hihte hondlien kablen : teon seiles to toppa.
leten laden þene wind : liðen mid þan uðen I.57.9-12.

(O has *passi* over *bieres* in the last half-line.)

& ouer sæ þu liðe : al buten læue.
to Alfinge kinge I.215.8-10.

& alle þa liðinde scipen : þe on his londe beoð I.40.22-3

Tweize dawes & tua niht : inne sæ weren.
þen oðer dai heo comen liðen : on æuen to londe I.48.1-4.

þat we mawen wel faren.
fare uorð ouer sæ : sel þat we wrðen.
& liðe swa longe : þa we to londe comen I.41.3-6

(O has *seili* so *longe*.)

& lette heo foðe (= forð as in O) liðen : ofer þa streμες
 I.137.4-5.

(Of Leir sending Cordoille to France.)

Liððen (for *liðden*) *þa leoden : þat heo on londe comen.*
æt Dertemuðe i Totenes I.76.5-7.

æfter com liðen : mid unimete leoden.
& he ladde to iwiten : oðer half hundred scipen.
þer æfter comen liðe : fwe & fwe.
bi sixe bi seoue : bi tene & bi ælleuene.
& þus heo comen liðen : toward þissen londe.
hæðene hære-gumen : to hirede þis kinges II.183.18-184.5.

Childric ouer þat wate[r] flæh : mid fiftene hundred cnihten.
þohte forð siðen : & ouer sæ liðen (O seily) II.469.20-3.

he scufen from þan stronde : scipen grete & longe.
þat lond heo al bilæfden : & liðen after vðen II.454.22-455.4.

comen sæ-liðende men : uorð into Irlonde II.90.9-10.

& seide þat heo weoren : sotten iueren.
þat ouer sæ brade : þider weoren iliðene II.301.12-15.

and forð he gon liðen : mid his Brutleoden.
þat is to iwitene : mid twa hundred scipene III.242.9-12.

heo rihten heore loues : and up drozen seiles.
liðen ouer sæ stræm : swa sel þuhte heom III.242.17-20.

zarkieð mine scipen biliue : forð ich wulle liðe III.164.5-6.
heo wunden up seiles to coppe . scipen gunnen liðen III.
 229.10-11.

He iseh a scip þar hit lað : sulkene wes þat seil-clað
 1.194.6-7.

In the following passages, it is not absolutely certain, although probable, that travelling by sea is implied:

sendeð liþinde men : æfter opere leoden.
to folien me in mine londe : for seoluer & for golde I.176.20-3.

tel me of þine cunne : & whar beo heore beonste.
& wha þe weore on uolde : fader oðer moder ihalde.
and of wulche londe : þu art iliðen hidere III.36.7-12.

(b) In general sense of 'go, come, proceed', etc.; also rather more specifically 'arrive, depart; march, wander'.

(i) 'to go': *At hire heo nomen læue : & to scipe liðden* I.54.13-14 (i.e. went down to the coast); & *Leir kan liðde (= gan liðen) : to Scottenæ leoda* I.138.22-3; & *heo liðden to þo muntan . & iþon wilderne : an hudlese wuneden* I.77.12-14; *swa swiðe liððeden forð : þat þe king heom for-leas* I.110.1-2 (this was on a hunting expedition); and *æiþer gon liþe : þider him to luste* III.234.24-5.

(ii) 'to advance, march':
forð heo comen liðen : þat heo iseizen Lincolne II.441.18-19; & *seoððen heo liðeden forð : into Lundene* II.126.10-11; (*Arður forbæd his cnihtes*) *þat heo liðen stille : swulc heo stelen wolden* II.440.9-10.

(iii) 'to arrive': *Aganippus wes bliþe : þet Leir wes cumen liðen* I.154.7-8.

(iv) 'to depart':

þa þu weoren from us iliðe : at þa latere cherre.
þa wes þa king swa bliðe : swa he nas nauer ære on his liue
I.356.21-357.1

Arður hit wende : to iwislichen þinge.
þat Childric iliðen weoren : to his azene londe.
and þat he nauere mære : nolde cumen here II.460.4-9.

Forð heo gunnen liðen : an eouste bilife III.16.24-17.1.

(v) 'to return': (There was a prophecy concerning Brutus, before he was born, that he should be driven out of his country) & *umben longne first : mið wrðscipe comen liðen* I.13.10-11.

(vi) 'to travel, wander': (Brutus prays Diana to help and guide him) *Whuder ich mæi liðan : & ledan mine leoden . to ane wnsume londe : þer ich mihte wunien* I.51.17-20; *lazamon gon liðen : wide zond þas leode . & biwon þa æðela boc : þa he to bisne nom* I.2.15-18 (see lines quoted under (ii) above (II.440.9-10); here *liðen* means simply 'advance', but the two following lines are: *liðen ouer leoden : & luden bilefden* II.440.11-12, where the word seems rather to have the force of 'to journey').

(vii) 'to traverse, pass over' (note the rare transitive construction):

Brien gon to farene : uorð mid ane iuere.
ut of Lundene : derneliche he liðede.

þene wæi toward Eouuerwike : wrað on his mode III.234.6-11.

(With this cp. Beow. 223: *þa wæs sund liden*. On this Chambers remarks 'this passive use of *liden* is difficult'. The transitive use by *Lazamon* may be a survival of an ancient construction. See further

remarks on this construction below, under *sturiēn*, LaȜamon's usage I (i).)

(viii) 'to march against, attack':

& þat folc of *Casquine* (sic for *Gasquine*) : þe noht nælden griðen.

& folc of fele leode ; þe liðe forð mid *Brennen*.

to þan *Romanisce men* I.236.17-21.

oh[t]liche liðe we him to : swa him alre laðest beo I.338.9-10.

for zet we scullen heom to liðen : swa heom bið ælre læ[ð]est

I.243.22-3.

(ix) 'to accompany':

þe folc of *Burguine* : ferde aȝan mid *Brenne*.

.
.

of *Normaundie* & of *Flaundes* : freoliche him fulsten.

& of *Lohærenne* : heo liðe to mid strengðe I.236.7-8, 14-16.

Ic liðde mid þine fader : & ledde his ferde I.96.23-4.

(x) 'to assemble, come together': þer weoren þeos leoden : iliðenned (sic) to-gadere I.288.14-15; þer liðen to-somne : alle *Scotleode* . *Peohtes* & *Sæxes* : sizen heom to-gæderes II.418.1-4; þa feolue *Rom* leoden : liðen heom to-somne III.6.4-5.

(xi) 'to pursue': & he him after liðde . into *Wales* he flæh : he him æfter ferde I.164.7-9.

(xii) figurative, 'to come together, be reconciled': ȝit buð mine leoue sunen : liðeð to-somne . & iwurðeð sæhte I.217.9-11.

(c) Special uses.

(i) (of spears) 'to sail through the air': heo letten gliden heora flān : & þa eatendes fluzen . & heo letten heom to : gæres liðen I.78.16-19.

(ii) expressing a non-material process, 'to come to pass, exist': he hehte þa luue scolde : liðen heom bi-tweonen I.88.12-13 (i.e. between those of his people whom Brutus had established at New Troy).

QUECCHEN intrans. and trans. 'to move about, or along, betake oneself, go, come, etc.; to shake, brandish'. *Cwecc(e)an* is very rare in OE, and according to the references in Bosworth-Toller, in Toller's Supplement, and in Grein, is always transitive and used of shaking or brandishing a weapon, and of shaking the head or the hands; *acweccan* is also generally transitive and used in the same sense as the simple verb. But Toller in the Supplement records one example from Thorpe's Hom., of an intransitive use, in the sense of 'to quiver'.

The three OE poetical passages in which the verbs are used exhibit both in exactly the same sense, 'to flourish, brandish':

- (a) *gewat him ða to waroðe wicge ridan*
þegn Hroðgares, þrymmum cwehte
mægen-wudu mundum Beow. 334-6.
- (b) *Dun[h]ere þa cwæð, daroð acwehte Mald. 255.*
Byrhtwold mæpelode, bord hafenode;
se wæs eald geneat, æsc acwehte Mald. 309-10.

Lazamon's usage: The transitive use appears to be confined to three passages, two of which resemble those in OE cited above; the intransitive use, on the other hand, is fairly widespread, and by the side of some slight survival of the earlier usage, shows, in the main, considerable extension of meaning. *Quecchen* indeed is one of the numerous group of verbs which are beginning to acquire the general sense of 'go, proceed', together with various other shades of meaning.

I. intrans. (i) 'to move along, come, go', etc.;

(a) 'to go' in general sense: *vs selve we habbet cokes : to quecchen to cuchene* I.141.1-2.

(b) 'to hurry, rush': *Corineus com quecchen* ('came rushing to the fight') I.65.20; *þa comen Arðures men : quecchen after streten* III.72.19-20..

(c) 'to travel, wander': *þæ quahten heo wide . & ferde sichinde lond : þer heo mihten on libben* I.310.14-16.

(d) 'to escape': *ne lete ge nenne quick : quecchen to holte* (O has scapie) I.35.23-4; (and alle his men slown) *buten whulc* (MS. *wuhlc*) *wræcche swa cwic : cuahte to holte* (MS. *holde*) I.164.16-17.

(e) (of ships) 'to sail along': *And ich isæh þare quene scip : quecchen mid vðen* I.199.9-10; *þet is þere quene scip : þe us bi-foren queccheð* I.194.10-11.

(ii) 'to tremble, shake, be agitated';

(a) (of the head):

þa fond he þer ane quene : quecchen mid hafde.

heor-lockede wif : weop for hire wei-sið III.25.17-20.

(This was the wretched woman held in the power of the giant, and rescued by Bedevere.)

(b) (of the earth) 'to tremble, quake':

Fluzen ouer þe woldes : þritti þusend sceldes.

& smiten a Colgrimes cnihtes : þat þa eorðe aʒæn quehte II.
 421.20-3.

II. trans. (i) 'to shake, brandish (spear); toss (helmets)':

heo quehten heore scaftes : kinewurðe cnihtes II.582.1-2.

(Cp. the OE passage cited above.)

þa riden Rom-leoden : riseden burnen.

quahten on hafden : helmes hezen.

sceldes on rugge : ræȝe Rom-leoden III.71.17-22.

(The sense may be, not 'they tossed their helmets' etc., but 'their helmets (or plumes) quivered' etc. The OE usage however rather favors the former. See also the remarks under *RUSIEN*, *RISIEN* below.)

(ii) 'to compel to go, drive, chase':

alle þa him beren onde : he draf of þan londe.

hizendliche he heom quehte : ouer þere Humbre III.265.11-14.

RÆSEN 'to rush upon, rush to the attack'. OE *ræsan* in the same sense:

(*frecne fyr-draca*) *ræȝde on ðone rofan* Beow. 2690.

ac he reðig-mod ræȝt on gehwilcne.

wede-hunde wuhta gelicost Metr. 25.17-18.

Of the approach of death:

. *ne mæg ænig þam*

flæȝce befonen feore wiðstondan

ricra ne heanra, ac hine ræȝeð on

gifrum grapum Guthl. 966-9.

Lazamon employs the word frequently nearly always of hostile and violent approach. The following is an exception, and the word here means simply 'press forward', the object being plunder, not fighting:

& we mæwen faren riche : ȝif we ræd luuieð.

for al þat god of þisse londe : we sculon leden mid us.

& heo bi-læuen wrecches : & wælde heom scal fulien.

for þe riche haueð muchel rum : to ræsen biforen þan wrecchan

I.43.5-11.

A few typical passages from among many will suffice to illustrate the ordinary use of this word: *Corineus heom rasde to : swa þe runie wulf* I.66.4-5 (the MS. has *rimie*, but cp. *runie wulf* II.421.5); *& æl dai heo ræmden : & resden to þan castle* I.71.19-20; *Heo ræȝden to þan walle : ræȝe þeines* II.100.1-2.

RAKIEN 'to go, hasten'. OE *racian* 'to rule, direct; to direct one's steps, go'. A rare word in OE. Bosworth-Toller gives among a few other references—*þæt he to hrædlice into Godes huse æfter ðam racige Wulfst.* 155.21. The noun *racu* as in *ea-race* is also noted from an OE charter. The ME sense of this noun is 'track, path'. The verb is noted by Bradley as occurring in the ME *Genesis* and *Exodus* and *King Horn*, as well as in the passage from the *Brut* cited below, and the noun

in the sense of 'path' in *Gawain*. The solitary passage in which *Lazamon* uses the word is (*Vðeres cnihtes*) *leiden fur a þene tun : & fehten bilīue . mid sweorden heom to rakeden* II.333.12-14.

RUSIEN, RISIEN 'to shake', etc. OE *hrisian*, *hrysiān*, also *hrissan*, *hryssan*. The OE verb is used of shaking the head, Ps.108.25 (associated with *cweccan*), also of shaking a coat of mail, and of the quivering of spears. Toller (Suppl.) takes the verb as intransitive in the following:

Wedera leode on wang stigon
sæ-wudu sældon; syrca hrysedon
guð-gewædu Beow. 225-7.

However this may be, the verb is certainly intransitive in: *hæðne hildfreca heapum þrungeon / guð-searo gullon, garas hrysedon* Andr. 126-7 (here the last word means 'quivered?').

Lazamon's usage: (a) The verb seems to be transitive in

þa riden Rom-leoden : riseden burnen.
quahten on hafden : helmes hezen.
sceldes on rugge : ræze Rom-leoden III.71.17-22.

(This bears a close resemblance to the *Beowulf* lines above quoted.)

(b) intrans. (i) 'to tremble with rage':

Vp bræid Arður his sceld : foren to his breosten.
& he gon to rusien : swa þe runie wulf.
þenne he cumeð of holte II.421.2-6.

(ii) 'to tremble with fear':

scullen stan walles : bi-uoren him to-fallen.
beornes scullen rusien : reosen heora mærcen II.367.23-368.3

(iii) 'to quake':

þe eorðe gon to rusien : & þi wal to-reosen II.244.2-3.

A-STURTE 'to start up', from ON *sterste*; not in OE

þe eotend up a-sturte : & igrap his mucle clubbe III.34.10-11.

AT-STURTE 'to start back, away; escape':

(i) *þe stan al to-sceande : Locrin at-sturte* I.98.11-12.

(ii) *and he æt-sturte into are burje : þat heo weren iborzen* I.182.5-6;
He igræp cnif swiðe long : & þene king þer mid ofstong . into þere heorte :
& he him seolf at-sterste II.117.4-7.

SCÆCEN, A-SCEKEN. These verbs may be considered together as regards *Lazamon's* usage. In OE *sc(e)acan* is intransitive and *a-, on-sc(e)scan* transitive, whereas in *Lazamon* the uncompounded form is once transitive and the compounded one intransitive. The fundamental sense is 'to move rapidly', and the applications in OE are very various.

I. SCACAN.

(i) (of non-material things) 'to depart, pass away':

(a) (of time): *þa wæs dæg sceacen* Beow. 2306; *wæs eall sceacen dogor-gerimes* Beow. 2727; *seo tid gewat ofer timber scacan* Gen. 135.

(b) (of life): *þonne min sceacaþ / lif of lice* Beow. 2742-3.

(c) (of fame, glory, etc.): *wæs hire blæd scacen* Beow, 1124.

(ii) (of material things):

(a) (of human beings) 'to flee', in the phrase *on fleam scacan*; see Jud. 292, and Jul. 630.

(b) (of arrows) 'to fly': . . . *þonne stræla storm strengum gebæded / scoc ofer scild-weall* Beow. 3118-18.

(c) (of frost) 'to fly off, be shaken': . . . *hwilum hara scoc / forst of feaxe* Ridd.91.11-12.

II. A-SCEACAN.

'To shake, brandish (a weapon)': *Offa gemælde, æscholt asceoc* Mald. 230.

III. ON-SCEACAN.

'To shake, ruffle (bird's feathers)': *heo feðera onsceoc, gewat fleogan eft / mid lacum hire* Gen. 1471-2 (perhaps we should take the sense to be 'shook, spread, her wings' here).

Lazamon's usage:

1. intrans. (i) 'to pass, be spent' (of time): *ær þe dai weore al a-sceken : wes þe castel bizeten* II.380.7-8. Cp. the Beowulf line under (i) (a) above.

(ii) (of men) 'to go, depart': *nes þer nan biscop : þat forð on his wæi ne scoc . na munec ne nan abbed : þat he on his wæi ne rad* II.129.7-10. (Note that MS. Otho has *Corineus com scecky* 'came hastening up', where the older MS has *com quecchen* I.65.20. See this verb above, in its alphabetical place.)

2. trans. 'to shake, brandish': *heo scæken on heore honden : speren swiðe stronge* III.53.3-4 (cp. OE II. above).

IV. AT-SCEKEN 'to flee, escape':

& euere cleopede : kenlich swiðe.

wendeð aȝæin cnihtes : & werieð eo mid fihthes.

hit is eo muchel scome : þat ȝe wulleð at-sceken III.54.9-14.

SCRIDEN 'to move, go, march, glide', etc. OE *scriðan* is of frequent occurrence in poetry—it is found, for instance, four times in Beowulf alone, and at least twice in Guthlac. The word was obsolescent in ME, and Bradley gives references to it only in Genesis and Exodus, and Minot, outside of Lazamon. In OE *scriþan* often expresses (i)

stealthy, furtive, or mysterious movement, as in: . . . *men ne cunnon / hwider hel-runan hwyrftum scriþað* Beow. 162-3; or *sceadu-helma gesceapu scriþan coman* Beow. 650; or . . . *Com on wanre niht / scriþan sceadu-genga* Beow. 702-3.

(ii) the flitting, gliding motion of a ship:

Leton þa ofer fifel-wæg famig scriðan
bronte brim-bisan El. 237-8.

(iii) the swift advance of flames:

. . . *blac rasettað*
recen reada leg reþe scriðan
geond woruld wide Chr. 809-11.

(iv) the passage of time (coming on of day and night):

. *Dagas forð scridun*
niht-helma genipu Guthl. 942-3.
 *þat min feorh heonan*
on þisse eahteðan ende geseceð
dæg scriþende Guthl. 1009-11.

(v) of the destroying angel stalking abroad:

. *bana wide scrað*
lað leod-hata Exod. 39-40.

(vi) of the sun:

. *oððæt hador sægl*
wuldor-torht gewat under waðu scriðan Andr. 1456-7.

In *Lazamon* there appear to be eight examples of the word and they show a far more commonplace and less diversified usage than in OE. *Scriðen* has, indeed, but slight differentiation of meaning, and is little more than one of the numerous synonyms for 'go, come, advance', etc., and as colourless as *gan*, *wenden*, etc.

(i) (of persons, armies, etc.): *mid muchele Scot ferde : he scrað to þisse londe* I.175.13-14; *Ða com Scottene king : scriðen to hirede* II.25.15-16 (see also II.399.13-14); *Whar beo ze mine Scottes : scriðeð me biside* II.26.2-3; *þa wes Arðures hired : sellich isomned . of Irlonde of Scotlonde : þider weoren iscriðene* III.38.19-22.

(ii) (of two combatants): *þa weoren þar tweien scalkes : & ifengen here sceldes . scriðen under bordes : & skirmden mid mæine* I.358.21-4.

(iii) (of the flight of javelins): *summe heo letten ut of scipen : scerpe garen scriþen* III.131.20-1.

(iv) *þurh-scriðen* 'invade': *þat ic heo scal þurhscriðen . & alle þa ilke men for-don : þat luwieð þene cristindom* II.29.10-12.

SCUEN trans. 'to thrust', etc.; intrans. 'to press, push forward, go'.

OE *scufan* in addition to the ordinary transitive meanings 'shove, push, thrust', is occasionally used intransitively in the sense 'pass, travel, go':

(*werige gastas*) . . . *þider ladað*
in þæt sceaðēna scræf; scufað to grunde
in þæt nearwe nip Chr. & Satan 632-4.

(otherwise Descent to Hell, etc. 266-8).

swa deð eac sio sunne, þonne his on sige weorðeð
ofer midne dæg; mere-condel scyft
on ofdæle, uncuðne weg
nihtes geneðeð Metr. 13.56-9.

(i) trans. Laȝamon has several examples of transitive use, especially in the sense of pushing out (a ship) from land: III.454.22; II.483.23; II.580.1; I.399.18; also of the wind driving a ship: II.518.22; of men heaving and shoving heavy stones: II.305.6; finally, of hauling out a luff sail: I.335.21.

(ii) intrans. At least two examples occur of this use of *scuuen*, in the sense of 'push (oneself) forward, advance':

igrippen heore sceldes : swiðe balde cnihtes.
and alle þe scutten : scuuen heom bisides III.77.6-9.

an hundred and sixti þusend : freoliche iwapned.
wið uten heore scutten : þa biuoren scolden scuuen III.158.
 15-18.

SIGEN 'to go; arrive; come to pass', etc. OE *sigan* 'to descend, sink, fall, decline, settle upon; to come, go, pass', etc. The more usual meanings in OE are those associated with 'sinking, falling', etc. In these or allied senses *sigan* is used (i) of rain, Gen. 1349; (ii) of the sun setting, Menolog. 112; (iii) of the dove returning weary and hungry to the ark and settling on the hand of Noah, Gen. 1462; (iv) of men falling asleep, Beow. 1251.

(v) 'to come, go, arrive', etc. The OE usage of *sigan* in these or allied senses is far more restricted than in the Brut.

(a) in most general sense (of men):

. *gunnon onettan*
sigon ætsomne oþþæt hy sæl timbred
geatolic and gold-fah ongytan mihton Beow. 306-8.

(b) (of angels):

. *Ðæt is wel cweden*
þæt him ælbeorhte englas togeanes
in þa halgan tid heapum cwomon
sigan on swegle Chr. 447-50.

(c) (of birds):

. *Donne fugla cynn*
on healfa gehwone heapum þringað
siġað sid-wegum Phoen. 355-7

(d) (of times and seasons): *Solmonað siġað to tune* Menolog. 15.

Lazamon's usage. We are not concerned here with the specific meaning 'sink', still retained by Lazamon in a few passages, e.g.: & *his fule saule : sæh in to helle* III.102.2-3. Of the use of *sizen* in the more general sense of 'come, go', etc., with a certain differentiation, no fewer than twenty-four examples occur among those referred to in Madden's Glossary. I have examined all of these passages, and cite some of the most typical.

(i) (of men, coming, going, arriving, etc., whether by sea or by land):

Peohtas & Sæxes : sizen heom to-gæderes II.418.3-4; *Julius him wes bi-foren : Androgeus him bæften . & on ælche side : sizen to his hærne* I.370.5-8; *þe eorles heom sizen to : mid selen heore cnihtes* I.426.13-14; *Bruttes sizen to-gæderes : fulle seoue þusend* II.4.5-6; *forð heo gunnen sizen . luken rapes longe : liðen forð mid uðen* III.164.8-10; *And seoððen he uor to Lundene : to ane muchele hustinge . þider gunnen size : alle Sexleode* III.177.1-4; *Caðwaðlan to scipen com : & seh forð mid uðen* III.226.8-9; & *hu Sæxisce men : isizen weoren to heom* II.220.4-5 (this was in order to attack).

(ii) (of ships):

. *her comen þreo hundred scipen.*
sizen æfter seoððe II.284.10-11.
sone me heom saiden : þat isizen weoren to londe.
mid luore & Yuni : ten siðen fifti.
scipen brade-fulle : of Brutten swiðe balde III.296.12-17.

(iii) (of sorrow and misfortune) 'to descend upon':

. *heo wes swiðe aðel burh.*
& seoððen þer seh toward : swiðe muchel seorwe.
þat heo wes al for-faren : þurh þere leodene uæl I.124.1-5.
þa wes muchele speche : zend þa kineriche.
of Judon þere quene :
& of þare seoreze : þe isize wes to lond I.171.15-17, 19-20.

þat eow æft seorwen : sizen bitweonen II.208.2-3.

(no man can tell) *of þere muchele særinesse : þa isizen wes to folke* II.98.18-19. (See also similar use of the word II.144.23-145.1, and II.377.20-1.)

(iv) (of events) 'to come to pass': *þinges seolcuðe : isizen to þere þeode* II.591.16-17; *þis beoð seolcuðe þing : isizen to þissen londe* II.472.3-4.

(v) (of an appointed day) 'to arrive': *þe dæi sæh to burhze : þe Arður iset hefde* II.587.15-16 (cp. the OE passage cited (i) (d) above).

SIDEN 'to go, travel', etc. OE *sipian* 'to go, journey, pass', etc. This verb, so frequent in OE poetry, makes but a very poor show in the ME Dictionary. Bradley refers to our Lazamon passage, but to no other poetical work of importance as containing the word, unless we reckon as such the Lambeth Homilies whence Bradley quotes a passage which reminds us strongly of the second quoted below from Maldon.

In OE the word is used in the most general sense of 'go' or 'come', 'proceed', etc. It appears, however, in spite of its frequency, to have a certain poetic flavour: *Com þa to recede rinc siðian / dreamum bedæled* Beow. 720-1; (no one shall reproach me) *þæt ic hlafordleas ham siðie / wende fram wige* Mald. 251-2; *þa com ellenrof eorl siðian / Abraham mid æhtum on Egypte* Gen. 1844-5.

The word is used of the journey of the departed soul:

(Ic ah mæste þearfe)
þæt min sawul to þe siðian mote
on þin geweald Mald. 177-8.

Also Grendel *scolde his aldor-gedal*
on ðam dæge bysses lifes
earmlíc wurðan, ond se ellor-gast
on feonda geweald feor siðian Beow. 805-8.

The solitary passage in Lazamon containing the word is: (*Childric*) *þohte forð siðen : & ouer sæ liðen* II.469.22-3 (O text has *wende* for *siðen*, and *saily* for *liðen*).

SPRENGEN 'to spring'. OE *springan* and *sprengan*. OE *sprengan* (wk.) means 'to fly in pieces, be shivered'. Both verbs occur in the same line in

he sceaf þa mid þam scylde, þæt se sceaf to bærst
and þæt spere sprengde, þæt hit sprang on gear Mald. 136-7.

The strong *springan* is used in Beowulf in various other senses expressing sudden or violent movement.

(i) (of blood) 'to spirt': *swa þæt blod gesprung / hatost heaposwata* Beow. 1667-8; *þæt him for swenge wat ædrum sprong* Beow. 2966.

(ii) (of Grendel's corpse under Beowulf's blow) 'to gape open': *Hra wide sprong / syððan he æfter deaðe drepe þrowade* Beow. 1588-9.

(iii) (of flames) 'to dart out, gleam': . . . *wide sprungon / hildeleoman* Beow. 2582-3.

(iv) The word is further used of fame: *Beowulf wæs breme—blæd wide sprang* Beow. 18; *Sigemunde gesprong / æfter deað-dæge / dom unlytel* Beow. 884-5. Cp. also *Lof wide sprong / miht and mærdō ofer middan-geard* Fates of Apostles 6-7.

Lazamon's usage: Although Lazamon has a present *spreng-*, the preterite and past participle are always strong, and the meanings are those of OE *springan*, not of *sprengan*.

(i) There seems to be one example of the verb used to express 'leaping' in the sense of human physical action: *Cador sprong to horse : swa spærc doð* (MS. *doh*) of *fure* II.478.10-11.

(ii) (of fire, sparks): *fusden feondliche : þat fur him sprong after* II.582.17-18; *luken sweord longe : leiden o þe helmen . fur ut sprengen* (= pres. pl. ? MS. Otho has *þe fur ut sprong*) III.141.16-18. (Note also the implication regarding 'sparks' in (i) above; cp. also the *Beowulf* passage cited under (iii) above.)

(iii) (of fame): *of hire wisdom : sprong þat word wide* I.269.2-3; *welle wide sprong þas eorles word* III.43.1. (With these cp. the OE passages under (iv) above.)

(iv) MS. Otho uses the verb in sense of 'to derive lineage': *And alle þeos weren min eldre : of wan we beoþ i-spronge* II.632.7-8. (MS. Calig. has, for the second half-line: *mine aððele uore-genglen*.)

STEPPEN 'to march, go; to step' etc. OE *steppan*, *stæppan* 'to walk, march (especially to battle), to pace along; to tread, set foot upon; to draw near, approach', etc. The OE verb is a word of some dignity. When used, as it commonly is, of human beings, it implies mostly, either a resolute advance to battle, or some other stately and dignified progress.

(i) 'to advance to battle': . . . *to þære hilde stop* Mald. 8 (of Byrhtnōþ advancing against the Danes); . . . *þæt wæs Ceolan sunu, / þe þone forman man mid his francan ofsceat, / þe þær baldlicost on þa bricge stop* Mald. 76-8; . . . *wæpen up ahof / bord to gebeorge, & wið þæs bearnes stop* Mald. 130-1; *eoten wæs ut-weard; eorl furðor stop* Beow. 761 (of Beowulf in his tussle with Grendel); . . . *gum-feþa stop / lind-hæbbendra* Beow. 1401-2 (of the retainers setting forth with Hroþgar & Beowulf, to march to Grendel's lair); . . . *stopon cyne-rof / secgas and gesiðas, bæron [sige] þufas / foron to gefeohte* Jud. 200-2; . . . *stopon heaðo-rincas, / beornas to beaduwe, bordum beðeahte* Jud. 212-13; *stopon styrmode, sterced-ferhðe / wrehton unsofte eadgeniðan / medo-werige* Jud. 227-9.

(ii) 'to march, walk' (in a majestic manner): *maga mode rof, meotude getreowe / stop on stræte* Andr. 984-5;

(*ambyht scealcas*) *breahme stopon*
to þan gyst-erne, þær hie Judithe
fundon ferhð-gleawe, and ða jromlice
lindwiggende lædan ongunnon Jud. 39-42.

. *wiggend stopon*
ut of ðam inne ofstum miclum
weras win-sade, þe ðone wær-logan
laðne leod-hatan læddon to bedde Jud. 69-72.

(iii) (of the dove sent out from the ark) 'to step, alight upon':

. *wilde seo wide fleah*
oð þæt heo rum-gal reste stowe
fægere funde & þa fotum stop
on beam hyre Gen. 1465-8.

(iv) in a more general sense; simply 'to walk, step forth':

se nemde god nið þa bearna
ærest ealra, siððan Adam stop
on grene græs gaste geweorðad Gen. 1135-7.
 *Hie þa raðe stopon* Gen. 1586

(of the sons of Noah hastening to find their father overcome with wine).

(v) (of death) 'to come near':

. *Deað nealecte*
stop stalgonum strong & hreðe
sohte sawelhus Guthl. 1112-14.

Lazamon's usage: (i) 'to advance to battle': *and forð he gon steppen : stið imainede eorl* III.24.18-19 (of Bedevere marching against the giant); *Arður gon steppen vorð : stið imoded kempe* III.33.10-11; *Heo to-gadere stopon : & sturnliche fuhten* III.135.15-16; (*ne wurð cniht swa wod*) . . . *ne nauer nan hæleð : þat he horn blawe. Ac we scullen steppen heom to : swa we stelen wolden* II.348.24-349.3.

(ii) 'to walk majestically':

þa þe king wes isete : mid alle his duzeðe to his mete.
eorles & beornes : æt borde þas kinges.
þe stiward com steppen : þe kxy wes ihaten II.610.18-611.1.

(iii) 'to set foot on, land on':

and he þat scip strong : scaf from þan londe.
and stop uppen þet æit-lond : & ladde his stede an his hond
 II.579.25-580.3.
at Portchæstre heo comen a lond : & stepen up a sæ strond
 I.394.1-2.

sone swa heo comen : hafne heo nomen.
mid muchelre strengðe : stepen a þa riche II.549.15-18

(I take *stepen a þa riche* as equivalent to *stepen a lond*).

(iv) in general sense, 'to go':

& somnede alle þa scipen : þa bi þare sæ fluten.

and þohte mid strengðe : steppen to londe III.288.17-22

(This refers to Cadwalader who had fled to Brittany, but now purposed to return to England, and make peace with Athelstan, and hold his country as the latter's vassal.)

STURIEN intrans. and trans. 'to stir, move', in various senses. OE *styrian* 'stir', etc. intrans, and trans. in many shades of meaning. In OE the verb is more usually transitive, and expresses the ideas of 'moving', 'rousing' in both a physical and non-material sense.

I. trans.

(i) (of the wind): *þonne wind styrað lað gewidru* Beow. 1374.

(ii) (of human action, in playing the harp): *sum mæg fingrum wel / hlude fore hæleþum hearpan stirgan* Chr. 668-9.

(iii) (of birds raising their voices): (*wudu fuglas*) *þonne hi geherað hleoðrum brægdan / oðre fugelas, hi heora agne / stefne styriað* Metr. 13.47-9.

(iv) 'to disturb': *oððe hring-sele hondum styrede* Beow. 2840 (refers to the dragon's treasure hoard).

(v) (of grief affecting the mind): *and mid þæm bisgum þe on breostum styreð / mon on mode mæla gehwylce* Metr. 22.64-5; (*monna mod-sefan*) *bioð of heora stede styrede* Metr. 7.25.

(vi) 'to raise a subject, narrate': *secg eft ongan / sið Beowulfes snyttrum styrian* Beow. 871-2.

II. intrans.

(i) (of living creatures) 'to move, move about', as contrasted with remaining still:

þæt hi ne moten ofer metodes est

æfre gestillan, ne eft eallunga

swiðor stirian þonne him sigora weard

his geweald-leðer wille onlætan Metr. 11.25-8.

(ii) (of the sea) 'to rage, be stirred up':

. *þa gedrefed wearð,*

onhrered hwæl-mere

.

. *weder-candel swearc,*

windas weoxon, wægas grundon

streames styredon Andr. 369-74

La3amon's usage: *Sturien* is of fairly frequent occurrence in the Brut.

In contrast with OE usage the intransitive predominate over the transitive forms, and I have noted two passages in which the verb is reflexive.

The usual senses are 'to stir, move about, bestir oneself', and occasionally, 'to move from one place to another, to go'.

I. intrans.

(i) 'to go':

Auormest heruestes dæie : uorð heo gunnen sturien.

auer riht þene wæi : þet toward Munt Giu lai III.7.3-6.

I think we must take *þene wæi* here as adverbial, or as a cognate accusative. O has *forð he wende alle þan way* which is rather less specific than the words of C, which refer to a particular road, and not to a general direction. In spite of this, which is a factor in deciding the question, it would seem temerarious to understand the words as 'they traversed, passed along, the road which led . . .'. I know of no authority in Old English or in LaȜamon which could warrant the use of *sturien*, in this sense, governing a genuine accusative. It is true that *he liðede þene wæi* was taken as a transitive construction (see above under LIDEN, LaȜamon's usage, (vii), but this seemed justified (1) by the apparent transitive use of *liðen* in Beowulf 223, as well as (2) by the specific 'road to York' which Brien followed. It seems to me that the words *sturien þene wæi* are equivalent to such phrases as 'to go one's way, to go the way of all flesh', etc., whereas *liðede þene wæi*, etc. is on rather a different footing for the reasons given. However, opinions will differ: some may agree with me in seeing a genuine accusative in one passage and not in the other; some may prefer to regard *þene wæi* as adverbial in both passages; others again may see a transitive construction in both. See discussion under LIDEN, LaȜamon's usage (vii).

(ii) It is doubtful whether we are to understand *sturien* to mean 'go forth', or rather simply 'to move about, stir, be agog', etc. in the following:

men gunnen to sturien : ut of wude heo droȝen III.282.24.-283.1.

þa hit dai wes amarȝen : duȝeðe gon sturie.

forð heo gunnen liðe : to heore kine-lauerde III.67.20-2.

See the same words in II.575.17-18, where the sense is most probably 'to be stirring'. The sense in the following seems to be 'moved about, were excited':

þa iherde þe king : mucle ludinge.

In Lundene : stureden þa leoden II.22.1-4.

(iii) 'to bestir oneself, show activity': *þer wes uiht swiðe strong :*

stureden al þa ferdan III.108.16-17; & (*Arviragus*) *sturedede i þon compe : al se hit þe king weore* I.398.9-10 (A's brother had been killed, and A. had taken his horse and armour).

(iv) 'to stir, move', contrasted with keeping still: & *beoð alle stille : þat na man þer ne sturde* II.306.7-8.

(v) (of the voice) 'to ring out, peal': *þa umbe stunde : stefne þer sturedede . wide me mihte iheren : Brutten iberen* III.124.22-125.2.

II. trans.

(i) 'to stir, cause to shift from position':

& *gað to ane stane : 3e alle glæue.*

& *cunneð* (MS. *cumeð*) *mid strengðe : 3if 3e hine mazen sturien*
II.305.10-13.

again: *heo swunken ful swiðe : ah næfden heo sy3e.*

þat heo auer æine stan : sturien mahten II.305.18-21.

(ii) 'to move the tongue': & (*Merlin*) *sturedede his tunge : alse he bede sunge* II.305.21-2.

(iii) 'to stir weapons; = to take up, get ready, or, to brandish' ?

Locrin & Camber : comen heom to-3eines.

heo stureden heora wepnan : wane wes on folke I.93.8-11

(this was against King Humber and his host).

(iv) 'to bring together; collect':

Nes hit nauer mid soð itald : seoððen þeos weoruld wes a-stald.

þat weore on ane stude : swulc 3ifueðe istured I.346.16-19.

(MS. O has *so moche god togadere*. This would seem to bear out the above interpretation. On the other hand it is just possible that *istured* echoes *itald*, and that the sense is 'such gifts were told of as being in one place'. Cp. this use of *styrian* in OE in I. (vi) above.)

III. reflexive. 'to bestir oneself, get busy':

heo ferde forð rihtes : þurh godes mihten.

from stouwe to stouwe : & stureden heom seoluen.

hælzeden alle þa templen : a þes helindes nomen I.434.19-435.1.

Nimeð eoure sexes : sele mine bernas.

& *ohliche eou sturied* : & *nænne sparied* II.214.16-19.

A-STURIEN 'to disturb'. OE *a-styrian* 'to shift, disturb, uproot':

þæt ic wæs aheaven holtes on ende

astyred of stefne minum Dr. of Rood 29-30.

Lazamon uses the word of emotional disturbance, excitement, etc.:
& *astured weoren Romwren alle : mid sterclichere wræððe* II.3.21-2;
astured was al þas þeode : strongliche swiðe III.152.2-3.

TEMEN 'to go, resort to'. OE *tieman*, *tyman*, *teman*. The OE verb has the senses 'to produce offspring, procreate; (as legal term) to vouch to warranty; appeal to a source or authority'. It is difficult to see the line of development whereby the general sense 'go, betake oneself' could be derived from the OE uses. Nor do the senses in which the OE noun *team* is used afford any clue to the new meaning of the verb. As a matter of fact, the noun seems not to occur at all in the Brut. The sense 'go', etc. for the verb is quite unmistakable, and it is also found in several later West Midland works in alliterative verse; e.g., *Cleanness*, and *Patience*.

The passages in the Brut are the following:

- (i) *Albion hatte þat lond : ah leode ne beoð þar nane.*
þerto þu scalt teman : & ane neowe Troye þar makien I.53.9-12.
 (O has *wende*.)
& he hehte Tennancius : to Cornwale temen (O *wende*) I.306.8-9
Arður 3æf him þene tun : & he þer to temde (MS. *tumde*).
And sette þer þene nome : after him seoluen III.114.8-11.

(ii) Some trace of the OE special use may survive in the following passage, where the verb appears to mean 'bear witness, portend'; *Mad-den*, however, takes the meaning to be 'tend':

- & ic wolde iwiten æt þe : þu ært mi wine deore.*
to whan þis tocne wule ten : to wulche þinge temen I.389.16-19.
 (The signs and tokens are the wonders and portents which accompanied the birth of Christ.)

TEON intrans. and trans. 'to proceed, draw near, come go, approach', etc. OE, in addition to the sense 'draw, attract', in various shades of meaning, also uses *teon* in that of 'come', etc. It is only with this meaning that we are concerned here. A number of passages illustrating this usage are cited from prose and poetry, by Bosworth-Toller and Grein.

- A. intrans. *Forðen wit lædan sculon*
teon wit of þisse stowe and unc staðol-wangas
rumor secan Gen. 1911-13.

- *niperweard gongeð*
hiþeð holdlice and to ham tyhð Ridd.34.3-4 (The Rake).

- Hwæt : hi on heofon setton hyge hira muþes*
and hira tungan tugen ofer eorðan Ps. 52.7.

This intransitive use of *teon* seems far commoner in prose than in

poetry. In the latter the transitive usage is rather more frequent than the intransitive.

B. trans. 'to go a journey, traverse a road', etc.:

. *æghwylcum eorla*

þara þe mid Beowulfe brim-lade teah Beow. 1050-1.

. *ic ne wat hwæder*

atol æse wlanc eft-siðes teah Beow. 1331-2.

(*þa fore-gengan*) *tugon longne sið*

in hearmra hond Phoen. 440-1.

Lazamon's usage: The word is extremely frequent in the Brut, and in by far the greater number of the thirty passages I have examined the sense is 'go, proceed, approach, retire, depart', and so on. The precise shade of meaning is often determined by an accompanying preposition or adverb. The word is used both intransitively and transitively, but the former largely predominates. The verb is also fairly often used reflexively.

I. General sense: 'go, come', etc.

A. intrans.: *þa comen þære twenti : teon of þan munten . eotendes longe* I.78.2-4; *For miself ich wille teo to-foren : to þas kinges* I.34.13-14; & *he him seolf teih bi-foren : to telde þæs kinges* I.35.3-4; *þa wolde þat folke fleon : þer com Julius teon* I.369.18-19; *he þohte swa forð teon : æfter þere Temese* I.333.19-20; *Modred bi-gon to fleon : & his folc after teon* III.133.7-8; *Vðer mid his monnen : teh to þan munte* II.345.9-10; *Nu is Childric iulozen : & awæiward itohzen* II.477.17-18; *þat þe kaisere flæh : & touwarde þæ hulle tæh* II.484.6-7; *we þe wulleð to teon : & þine holde men beon* II.280.9-10; *and siht þu þas ærnes teon* II.498.21; & *fleo þider þe þu fleo : heo þe wulleð after teon* II.249.18-19.

B. trans. (cp. the OE passages cited under B above):

heo tuzen riht þen wæi : þe into Tintaieol læi II.373.7-8.

C. reflexive: (*Arður*) *thehte (O teh) hine a bacward : in enne uald brade* II.419.16-17; *Mid wiðeful his fluhte : tæih him to þan lufte* I.122.13-14 (of King Bladud who had made himself wings); *Arður him teh : bi-siden his iferen* III.32.23-33.1.

II. Other trans. and reflex. uses:

(i) 'turn aside': *He tah hine azein ane þrowe : & þreateð þene castel . & þat folc þer inne* I.28.4-6 (O has *He ternde him azein*); *Vther tih þe aزان : & bonne þine cnihtes* II.306.4-5.

(ii) 'bring down upon':—*Seoððen þu tuzen uuenon þe : uncuðe leoden* II.248.19-20.

(i) 'pull up, hoist': *þe furken weoren aræred : heo teuwen up þa ȝisles . and heom þer hengen* I.244.1-3.

(iv) figurative, 'follow a line of conduct; pursue, set about, a trade': *He bi-lefde tweie sunen : þa tuwen þeo fader þæuwes* I.2712-3.

intrans.: & *he hæhte alle cnihtes : demen rihte domes . and þa eorðe-tilien : teon to heore cræften* II.505.6-9. M

TUHTEN intrans. and trans. OE *tyhtan* 'to incite, urge, instruct', etc.: *hi* (i.e. devils) . . . *duguðe beswicað / and on teosu tyhtað tilra dæda* Whale 33-4; also, . . . *læran sceal mon geongne monnan / trymman and tyhtan, þæt he teala cunne* Ex. Gnom. 45-6. In physical sense 'to draw, stretch': *hine heteliche tihtan swa swa man web tiht*, cit. Toller in Supplement from Skeat's *Alfric's Lives of Saints*.

Laȝamon uses this word fairly often, but never in any of these senses. It is very commonly intransitive with the meaning 'draw near, approach, come, come together', etc., or 'depart, go', etc., of which I can trace no sign in OE. Bosworth-Toller rightly observe that Laȝamon employs the word very much as he does *teon* (q.v.). Laȝamon uses *tyhtan* transitively of physical action in the sense of 'pull, hoist', just as he does *teon*.

A. trans.

(i) 'to hoist': *heo teuhten heore seiles* (O has *drowen vp seiles*) II.74.10; again, *seiles þertuhten* III.13.4.

(ii) 'to draw aside': (the earl) *þa tuhte hine* (= *heom*, i.e. certain knights) *ut a þan felde : aneouste þare ferde . and þus him islide* III.63.17-19.

(iii) 'to bring' (to a certain state):

ȝif ai mon mihte Traher king : tuhten to dæðe :
mid drenche oðer mid dweomerlac : oðer mid steles bite II.
 47.23-6.

(iv) 'to draw':

þa hefde þe king Siluius his wille : & Lumbardie he walde .
& al his Troinisce cun : tuhten (= tuhte ?) to him seoluan
 I.116.13-16.

(i) 'to move towards, or away; go, come':

Iherden hit Troynisce : & tuhten to þon Gricken I.35.7-8
 (*hit* was the blast of a horn).

Æuer tweie and tweie : tuhte to-somne II.617.24-618.1
 (of knights walking hand in hand through Arthur's hall).

Ut of Eouerwike : bi nihte heo iwende.

& toward Karliun tuhte : swa swiðe swa heo mahte III.138.3-6.

Uppen þere Tambre : heo tuhten to-gadere III.140.23-141.2
(O icome to-gadere).

sixtene siðe tuenti scipen : tuhten from hauene I.47.14-15.

after þere Temese : tuhten forð into þere sæ.

forð heo iwenden : into Sæxlonden II.388.16-19.

(Cador isæh) þat þe kaisere flæh : & touwarde þæ hulle tæh.

and Cador him after : swa swiðe swa he mahte.

and him to tuhte : & hine of-toc sone II.484.6-11.

(ii) 'to adhere to, become converted to':

Ure drihten heo bi-læueð : and to Mahune heo tuhteð III.88.

23-4.

ÐRINGEN 'to oppress; crowd, press, rush, go'. OE *þringan* in same senses:

. *Wergendra to lyt*

þrong ymbe þeoden þa hyne sio þrag becwom Beow. 2882-3.

Hreðlingas to hagan þrungeon Beow. 2960.

weras wif somod wornum and heap[um]

. *þrungeon and urnon*

ongean þe þeo[d]nes mægð Jud. 163-5.

Oft to þam wicum weorude cwomun

deofla deað mægen duguþa bescyrede

hloþum þringan Guthl. 866-8.

Lazamon's usage: The usual sense is the general one of 'hasten, press forward, go', etc.:

(i) (of people):

And muchel of his folke : flozen mid þon kinge.

& a-stizen uppe þen hul : mid muchele mod-sorze.

napeles þer up þurngen : fiftene þusende I.370.15-20.

& Carrais him on þrong : and mid spere him of-stong II.19.11-12.

þa þe mæsse wes isungen : to halle heo þrungeon II.353.9-10.

Also, with different second half-line:

of chirechen heo þrunge II.609.11-12.

Birles þer þurngen : gleomen þer sungeon.

Ah Bruttes him þrungeon to : þræfliche swiðe III.108.22-3.

(ii) (of ships): *scipen þer forð þrungeon* III.13.2.

WINDEN 'to advance, go, by ship, etc.; go on a horse; fly; fall', etc.
OE *windan*. The OE verb is used in many of the same senses as in

Lazamon. On the other hand the use is rather more specific in the former than in the latter. We find again in Lazamon the tendency to generalize this, as most other verbs of motion, and often to rob it of such specific meanings as 'roll, circle round (in flight)' and so on, and to use it simply as another synonym for *wendan*, *gan*, etc. This use is absent in OE. Some of the more specific and picturesque senses found in OE are, however, retained in Lazamon, as we shall see. The transitive senses are quite different.

A. intrans.

(i) 'to fly, hover, circle round in flight':

þæt he mid feðer-homan fleogan meahste
windan on wolcne Gen. 417-18

. *wand him up þanon.*

hwearf him þurh þa hel-dora Gen. 446-7.

(Both passages refer to the fallen angels.)

þær wearð hream ahafen, hremmas wundon
earn æses georn Mald. 106-7.

(of birds) *sume fleogende*

windeð under wolcnum Metr. 31.11-12

(ii) 'to fly, be propelled through the air' (of spears):

. *oft he gar forlet*
wæl-spere windan on þa wicingas Mald. 321-2.

(iii) 'to rise, leap up' (of flames): *Wand to wolcnum wæl-fyra mæst*
Beow. 1119.

(iv) 'to flutter' (of banners): . . . *þufas wundon / ofer guðfare*
Exod. 342-3.

(v) 'to beat, roll' (of waves):

. *streamas wundon*
sund wið sande Beow. 212-13.

. *þa wið holme ær*
fæste wið flodum foldan sceldun (MS. *scehdun*)
stið and stæðfæst stapelas wið wæge,
wætre windendum Chr. 979-82.

(vi) 'to roll on the ground':

. *sloh ða eornoste*
ides ellen-rof [oþ]re siðe
þone hæðenan hund, þæt him þæt heafod wand
forð on þa flore Jud. 108-11.

B. trans.

(vii) 'to brandish': . . . *bord hafenode / wand wacne æsc* Mald. 42-3.

(viii) 'to twist': in the phrase *wundnum gold* Beow. 1562.

Lazamon's usage. I put first three passages which agree with OE usage:

A. intrans.

(i) 'to fly' (of a dragon), cp. OE (i) above:

þa com þer westene : winden mid þan weolcnen.

a berninge drake III.15.2-4.

(ii) 'to fly through the air' (of missiles), cp. OE (ii):

stanes heo letten seoððen : sturnliche winden III.94.16-17.

(iii) ? 'to flutter in the air' (of banners), cp. OE (iv):

isehzen ouer wolden : winden heore-mærken II.482.5-6.

(Were it not for the use of *windan* in Exodus cited in (iv) above one would be inclined to understand Lazamon's line to mean simply 'they saw the standards winding across the wold', as does Madden, referring to the line of march. The analogy with the OE line, however, seems sufficiently close to warrant my proposed interpretation.)

(iv) In the following passage *wond* might be taken either in the perfectly general sense 'went', or here, 'fell', or in the sense 'went reeling, or rolling to the earth'. In the latter case we have some resemblance to the OE passage (vi) above.

and (Frolle) his sweord up ahof : & a-dun riht sloh.

and smat an Arðures sceld : þat he wond a þene feld II.584.7-10.

(v) 'to fly' (of splinters):

sceld azein scelden : sciuren þer wunden.

sweord azein sweorde : sweinde wel ilome III.108.10-12.

(vi) General sense, 'go, advance, proceed', etc.;

(a) (of journey by sea): *þat we mosten ouer sæ : winden mid seile* II.450.8-9; *ankeres heo up drozen . . . wunden into widen sæ* III.12.21, 23.

(b) 'to go on a horse':

seoððen þis weorlde wes a-stald : nes hit nowhar itald.

þat æuere ai mon swa hende : wunden uppen horse.

swa him wes Arður II.577.8-12.

þat heo bi-comen sone : to þan uolke of Rome.

wurðliche iwepned : wunden an horsen III.45.22-5.

(c) (of a wolf stealing upon a flock of goats):

þenne comeð þe wlf wilde : touward hire winden II.471.1-2.

B. trans.

In both passages the sense is 'wind up, hoist' (sails): *heo rærden heora mastes : heo wunden up seiles* I.47.11-12; *heo wunden up seiles to coppe : scipen gunnen liðen* III.229.10-11.

ÆTWINDEN 'to escape'. OE *ætwindan*. This is a rare word in OE. Bosworth-Toller has a reference to Job 1.16: *ic ana ætwand*, and, together with Grein, to Wright, Glosses 7: *ic læte hig ætwindan to wuda*. (This is fr. Ælfric's Colloquies. See Wright-Wülcker 96.1-3.) The only poetical passage referred to is:

. *heold hine syð þan*
fyr and fæstor, se þæm feonda ætwand Beow. 142-3.

The word is of more frequent occurrence in the Brut than in OE. A few passages will suffice:—

. *kempen þer feollen.*
Al Albanakes folc : folden i-sohten (MS. *i-scohten*).
buten whilc þat þer at-wond : þurh wode burze I.92.2-6.

al þa ferde : heo falden to grunde.
buten swulc for-wonde man : þe mid sorwe at-wand I.181.4-7.

(*Hengest þuhte þat he walde*) *fleon into Scotte.*
bat he mihte mid wiȝele : þanene atwinden II.257.3-5.

MISCELLANEA

STATISTICS OF THE HOMERIC LANGUAGE AND A QUEER BIT OF CRITICISM

For years I have held the belief that there was no need to face the distasteful task of appraising the chapter in Scott's *The Unity of Homer* headed: *The Linguistic Arguments*. It seemed that enough had been printed to put even the unwary on his guard. Yet this chapter impelled Nilsson to write (*Homer and Mycenae* 33): 'His special field is statistical inquiry into the Homeric language, and he has put it beyond doubt that the alleged discrepancies in this regard between the *Iliad* and the *Odyssey* do not exist.' Perhaps, then, there is further need of a corrective. I shall not, however, undertake to provide it with completeness. A single specimen must suffice, and I have chosen one that can be treated briefly. It is neither the best nor the worst thing in the chapter, and its workmanship seems in various ways typical.

Jebb goes (Scott 94-5) on the roll of great disintegrationists who are incompetent even at counting¹ for saying: 'Hiatus in the bucolic dieresis is about twice as frequent in the *Odyssey* as in the *Iliad*.'² 'By this', says Scott, 'he means that a word ends in a vowel and the following word begins with a vowel at the end of the fourth foot about twice as often in the *Odyssey* as in the *Iliad*.' This is a gross misinterpretation: the explanation given by Scott covers verse-closes of three types:

- (A)..... ὀδύρετο ὅστέα καίων
- (B)..... ὀδύρεται ὅστέα καίων
- (C)..... ἄτερ ὄρκου οἷσ' ἤελον

Jebb by his own definition of hiatus as 'the non-elision of a vowel' clearly excludes type B, and by his reference to *Monro* §382 (headed: **Hiatus after short syllables**) shows further that only type A is in question. A charge against Jebb that this is not shown with sufficient clearness will not lie: Jebb is simply reproducing *Monro*; and *Monro* is, as Miss Stawell saw, the proper starting point for one who wishes an

¹ The type of argument from such incompetence is described in *Class. Phil.* 16.362 (1921).

² I correct Scott's obvious heterophemia, without wasting space in lamenting 'poor Scott's' inability to quote correctly.

understanding of the problem, not a verbal triumph over a great disintegrationist. Monro's statement cannot be misunderstood even by one who reads on the run.

Scott counts something or other—something that is in keeping³ neither with his own explanation, nor with Jebb's (Monro's) definition—and declares: 'The fact is that the *Iliad* has sixty examples of this hiatus, the *Odyssey* sixty-six'. He then expatiates on the closeness of this agreement, ignoring the inconvenient fact that one poem is much longer than the other. Next, to clinch the matter, he writes: 'Miss Stawell and I have independently counted these examples and have reached the same conclusion.'

The natural meaning of that sentence is that these two independent counts agree so closely that there is no reason to suspect serious error in either. But—believe it or not—the fact is that these counts diverge greatly. Miss Stawell,⁴ who knows what she is doing, gives two sets of figures, finding for type A 'about' 34 examples in the *Iliad*, 47 in the *Odyssey*; and for types A + B in 'round numbers' 970 examples in the *Iliad*, 860 in the *Odyssey*.⁵ Neither set can be used to confirm a count of 60 examples in the *Iliad*, 66 in the *Odyssey*.

It may be claimed that I have misinterpreted Scott's sentence—that no more was intended than a general expression of agreement with Miss Stawell's conclusion that the facts are not as significant as they might seem on 'a cursory examination of Monro's figures'. Therefore 'reached the same conclusion' was written, not 'reached the same figures', or the like. Such an intention should have been worded far differently, but I will examine this possibility.

Miss Stawell's figures for type A 'about' 34 : 47 become when allowance is made for the different lengths of the poems about 34 : 62, or not very far from Monro's (Jebb's) 1 : 2. She very properly does not question Monro's accuracy, but believes that we will do better to compare not the number of examples, but the ratios of A : A + B in each poem. Computing these she finds that A is something over 3% of A + B in the *Iliad*, something over 5% in the *Odyssey*. Her comment is: 'Increase 2 per. cent.' Quite properly she regards an increase of 2% as 'very small'; but unfortunately the figure has been obtained by an error in arithmetic, so obvious that it should not have escaped one whose

³ Assuming that his count is not grossly inaccurate—e.g., 60 instead of 34, or instead of some figure larger than 970.

⁴ *Homer and the Iliad* 317, 319.

⁵ From her point of view type C does not call for consideration.

'special field is statistical inquiry'. The increase is not 2% but 66%, and such an increase is not negligible. In other words Miss Stawell's method of calculation ends in a ratio of 3 : 5 instead of Monro's 3 : 6. The difference is not sufficient to make it worth while to discuss whether her method is really preferable.

The problem then rests practically where Monro left it. Miss Stawell's recount has shown that there can be no serious error in Monro's statement that the examples of type A are twice as frequent in the *Odyssey* as in the *Iliad*; and that Scott's 60 examples in the *Iliad* and 66 in the *Odyssey*, are—supposing the count to be approximately accurate—not examples of 'this hiatus', but of something entirely irrelevant. It is not the memory of Jebb that has suffered from the attack made upon him for reproducing the statement of Monro.

This may be the sort of thing that Nilsson admires; but I feel that we are entitled to expect a better understanding of linguistic problems from a man who comes from one of the Norse lands, lands in which the seed sown by Rasmus Rask still flourishes so vigorously, and especially from one entitled to boast that he is a pupil of Jakob Wackernagel.

GEORGE MELVILLE BOLLING

'CASE' IN MODERN ENGLISH

The controversy on case in Modern English between Jespersen¹, Sonnenschein², Callaway³, and Collinson⁴, has come to a standstill without all points being settled. As will be remembered, it began with Jespersen's attack, in *The Philosophy of Grammar*, on Sonnenschein's five-case system, followed by a denial that there is a dative in MnE, and concluding that there are only a Genitive and a Common case. Sonnenschein hastened to defend himself, and Callaway took his side; Collinson sided with Jespersen, and there the matter has stood. Two points still remain, however, on which something needs to be said.

¹ Otto Jespersen *The Philosophy of Grammar*, London 1924 (here abbreviated PG); *A Modern English Grammar*, Part III, Heidelberg 1927 (here MEG); *The System of Grammar*, London 1933 (here SyG).

² E. A. Sonnenschein *A New English Grammar*, Cambridge 1921 (here abbreviated NEG); *The Soul of Grammar*, Cambridge 1927 (here SoG).

³ Morgan Callaway, Jr., 'Concerning the Number of Cases in Modern English' *PMLA* 42.238-54 (1927).

⁴ W. E. Collinson, 'The "Soul of Grammar" and the "Philosophy of Grammar" with Special Reference to the Question of English Cases' *Mn. Lang. Rev.* 23.129-44 (1928).

I

Jespersen's view was at the center of the whole discussion. He was taking and supporting the stand of a descriptive grammarian, which he thus sets forth:

No two languages have the same groupings. In dealing with the grammar of a particular language it is therefore important to inquire as carefully as possible into the distinctions actually made by that language, without establishing any single category that is not shown by actual linguistic facts to be recognized by the speech-instinct of that community or nation... The principle here advocated is that we should recognize in the syntax of any language only such categories as have found in that language formal expression, but it will be remembered that 'form' is taken in a very wide sense, including form-words and word-position.⁵

Accordingly, since he could find no 'formal' distinction existing for a 'dative' as against an 'accusative' in MnE, he threw out the former.⁶ But was he warranted in doing this? Let us follow his process through.

With respect to case, the first kind of formal distinction or expression is, of course, inflection. Word-order is referred to above as another, and elsewhere Jespersen also recognizes stress⁷ and tone or intonation⁸. He continues with the point (so often ignored by his opponents⁹ that he has had since to 'hammer this elementary truth into the heads' of his readers)¹⁰: that the particular absence of a formal distinction may be supplemented by a parallel within the same word-class, and that where such parallel is possible the syntactic category in question must be recognized.

Sheep in *many sheep* is a plural, because in *many lambs* and hundreds of other similar cases the English language recognizes a plural in its substantives; *cut* in one sentence is in the present and in the other in the past tense, because a difference at once arises if we substitute *he* for *I* (*he cuts, he cut*), or another verb for *cut* (*I tear, I tore*)¹¹.

⁵ PG 49, 50.

⁶ Among pronouns he of course admitted the latter—as distinct from the 'nominative', however.

⁷ PG 44.

⁸ SyG 25.

⁹ Neither Sonnenschein nor Callaway understood this. The latest offender writes in JEGP 34.414-31 (1935).

¹⁰ 'Form and/or Function in Grammar' JEGP 35.462 (1936).

¹¹ PG 51.

This method can be used, of course, only where the undistinguished form is 'more or less exceptional', in other words, where the syntactic phenomenon to which parallel is made is certainly established, and distinct in almost every instance.

Holding these principles, Jespersen approaches the claim that there is a dative in MnE by demanding to see the marks distinguishing it. Of course there is no inflection—in fact, only word-order may be claimed to set it apart from the accusative, and that, only when both appear together—i.e., in the Indirect Object + Direct Object¹² situation. Thus in *Give the boy a book*, *the boy* would be dative and *a book* accusative, if the IO and DO always come in this word-order. But, says Jespersen, in such a sentence as *Give it him*, the order of DO and IO is reversed, and since this word-order is frequent, it destroys the validity of the other as a case-determinant.

This is plainly wrong. For the fact is that the word-order putting IO before DO when both follow the verb is invariable among nouns in MnE. The exception comes among pronouns. Now what is true of one word-class is not necessarily true of another; nor can even Jespersen's rule of parallels, explained above, be applied here. He has shown this himself in an exactly analogous situation, where he was denying a distinction between nominative and oblique among nouns, despite its existence among pronouns:

In the case of *sheep* and *cut* the parallel was with words belonging to the same word-class, where the conditions are practically the same, but here the argument is drawn from another word-class, the pronouns, which present a great many peculiarities of their own, and keep up distinctions found nowhere else.¹³

To use this *Give it him* argument to deny a word-order distinction of DO and IO, then, is self-contradiction of the worst sort.¹⁴ At least among nouns, there certainly is such distinction.

But even among pronouns what is the true situation? The normal word-order is the same as among nouns, and almost without exception the reverse word-order holds only when *it* is the DO. In short, this exceptional order is not a free pattern, but a 'bound form'¹⁵ or petri-

¹² For these two terms we shall use henceforward IO and DO, respectively.

¹³ PG 182.

¹⁴ Collinson saw this (op cit. 137) as the 'one opening for a counter-attack' on Jespersen, but did not sufficiently stress the striking contradiction in method which it involves.

¹⁵ I am indebted to Prof. C. C. Fries for drawing my attention to this. We have in preparation a treatment of the history of this phrase.

fied phrase such as Jespersen would properly have to class with his 'formulas'.¹⁶ It never became an active pattern; neuter *it* being usually DO and therefore needing no word-order distinction, could violate the ordinary pattern under pressure of rhythmic or other considerations.¹⁷ The nominal order, on the other hand, is a living pattern, permitting all possible combinations of nouns and pronouns; and when new words are used, we follow this pattern.¹⁸ Thus the two are not even on a par, and the order of the petrified phrase cannot be taken as invalidating the only free and living pattern.

II

To show that with one minor exception there is a word-order which distinguishes DO and IO in MnE, does not, however, prove that there is a 'Dative', 'Indirect-Objective', or other case, unless we accept Jespersen's meaning of 'formal' distinction. Have we reason to accept it?

As it turns out, he has not himself fully accepted it! For while claiming half the time that word-order, intonation, etc., are possible case determinants, the other half of the time he is disproving their application to MnE—or seeking to do so. It is true that there is no invariable intonation or stress in case-situations.¹⁹ But the same cannot be said of word-order; for while there may be no 'dative' word-order, there certainly is 'indirect-objective' word-order (formal distinction of a case function). Had Jespersen wished, he could have made a rule for this, quite as applicable as any he might make for inflectional distinction of

¹⁶ PG 18 f.

¹⁷ See Jespersen's explanations of this, MEG 14.74. Ibid., 14.76, he quotes examples of this bound order; a few might seem to contradict the above statement, but they are all exceptional, and only one is from MnE.

¹⁸ *Give it me* and its ilk have died out of normal American, and even in written English constitute a none too vigorous survival. The competing *Give it to me*, with the *to*-phrase instead of the IO, outnumbers it heavily, according to a count I have recently made: 6 to 1 in Wells's *Love and Mr. Lewisham* and *The History of Mr. Polly*, 12 to 1 in Barrie's *Margaret Ogilvy*, *The Admirable Crichton*, and *Quality Street*, and 2½ to 1 in Butler's *Erewhon Revisited*. Nor can the weakness of this pattern be ascribed to a general weakening of the IO with respect to the *to*-phrase, since in the same books I find the IO's always outnumbering the *to*-phrases: Wells, 99 to 79; Barrie, 93 to 85; Butler 172 to 95: Incidentally, *it* as IO, but in the normal nominal order—e.g., *the harsh lines on his face give it a strong individuality*—also appears in the above books once in Barrie and twice in Butler.

¹⁹ See Jespersen's rejection of the Vocative, SyG 25 f.; also Collinson, op. cit. 134.

IO in languages where it occurs. Instead, he demanded of word-order as a case-determinant an exactness of application that he would never have expected of inflection. This was tantamount to a rejection of all formal distinctions except inflection, making his special sense of 'formal' synonymous, in practice, with 'inflectional'. One very important result of this was that—again in practice—'case' was the same for him in MnE as in Latin. Had it been otherwise, he must have seen that his sense of 'formal' really would entail a redefinition of 'case'.

For this term implies inflection, and only so can it be rightly used. We got it from Latin, to which it came from Greek,²⁰ and in both it implied inflection (either actually present, or capable of being supplied according to Jespersen's parallel method). Other formal factors were present in both Latin and Greek, but not as the marks of case; no more were cases recognizable by functions undistinguished formally. Analogous constructions and case substitutes use the term, but with explanatory additions (e.g., 'analytic' case) because they are not really 'case' at all. And when scholars (e.g., Deutschbein, *System der neuenglischen Syntax*) play fast and loose with the term, they end with a system of 'cases' limited only by the number of existing prepositions. In short, there are many syntactic functions distinguished by inflection, word-order, intonation, stress, use of prepositions, etc., some being closely analogous to case; but 'case' is properly applied only to the first.

This is no mere 'proof by etymology'; the history of the word will show that any other use than this has demanded qualificatives; and candid self-examination will tell even those of us who are not 'conditioned' by early Latinization the same thing.

III

Proof that there is word-order distinction between IO and DO in MnE, then, is no proof that these functions are 'cases'. If Jespersen is wrong in denying word-order distinction in a place where it exists, and is wrong also in being willing to apply the term 'case' on unwarranted grounds, he is still right, as it turns out, as to the number of cases in MnE.²¹

He is of course aware that IO and DO are distinguishable in MnE,²²

²⁰ SoG begins with an excellent short discussion of this matter.

²¹ His name for the uninflected case, 'Common' (borrowed from Sweet), as Sonnenschein says (SoG 7-8), is very poor. Case names describe functions; this describes form.

²² MeG 14.1₂.

even if they may not be called respectively 'dative' and 'accusative'. But what needs to be pointed out here is that future descriptions of MnE should find some term other than 'case' to apply to these functions. 'Case' will be properly used and will continue to have some meaning only if the association with inflection be fully recognized, and if stretching of the term to include other sorts of 'formal' distinction be abandoned.

And indeed, one good effect of Jespersen's attack was to make Sonnenschein use terms more exactly, to speak of 'case-function' and 'case-form' when referring to one only of the dual aspects of case ²³. What should have been inferred further was that 'case' does not apply to either aspect alone, and that 'case-form' means inflection.

Thus while in MnE the IO and DO are distinguished by word-order (and in other ways), and while a translator might have to use cases to render them, a descriptive grammarian, finding them not distinguished by inflection, would have no warrant to call them 'cases'.

F. G. CASSIDY

²³ SoG.

BOOK REVIEWS

Indogermanische Grammatik, Teil VII: Syntax II. Die Lehre vom einfachen und zusammengesetzten Satz. Pp. xii + 271. By HERMANN HIRT. Heidelberg: Winter, 1937.

The sixth volume of this work presented the syntax of the separate words, in relation to their own forms (see my review in *LANGUAGE* 11.154-60); the present volume takes up the uses of the words in connection with other words, that is, in sentences. It treats successively the interjections, vocatives, imperatives; the simple sentence, with and without subject, with and without verb, with copula, statements, questions, wishes; the extensions of the simple sentence by appositives, adjectives, adverbs, negations, gerunds, participles, infinitives; the subordinate clauses, of all their varied kinds; the association of two or more main clauses; the position of words in the clauses, relatively to each other. The volume closes with brief indexes of authors, subjects, and words (269-71).

Hirt's attitude is in this volume the same as in the preceding volumes of the series: he attributes to the primitive Indo-European speech many features the presence of which other scholars have not been inclined to admit. To avoid repetition, I refer to my review of the preceding volume (cited above), where a number of these points are dealt with. But in this volume there comes out perhaps more strongly, even than in the sixth, the full significance of the original *casus indefinitus* or uninflected form, serving originally for all uses before the development of a system of case-forms. Thus (27, 115, 203-5) he rejects the usual theories of the origin of the accusative and infinitive to express an indirect quotation; he regards this as an old inherited independent sentence, dating from the time when there was no distinction in use between *nom.* and *acc.* forms, and the infinitive was usable as the main verb of the sentence. For this interpretation he cites (203) Caesar BC 3.89 *simul tertiae aciei totique exercitui imperavit, ne iniussu suo concurreret* (Hirt has *-ent*): *se, cum id fieri vellet, vexillo signum daturum*; his view that *se . . . daturum* is an old independent sentence he supports by citing Zumpt §620, who, he says, finds it necessary to infer an omitted verb of saying on which the *se . . . daturum* depends. This seems to me to be a false assumption by Zumpt; for *imperavit* is a verb

of saying, though it includes the idea of ordering, and if the order of the quotations (*ne . . . concurreret* and *se . . . daturum*) had been reversed, we should have had *dixit*—after which, as a second quotation of indirect form, the subjunctive would express the command idea without any special emphasis on this factor in the main verb. Cf. Caesar BG 1.13.3–4, where *egit* is followed first by acc. and inf., then by the jussive subjunctive; and 1.40.1, where *incusavit* is equivalent to *dixit se incusare*, and is followed by a *quod*-causal clause (with subjunctive), then by the acc. and inf. Thus to me, at any rate, the interpretation of the acc. and inf. of indirect discourse as an old independent sentence, seems unconvincing.

I do not wish to appear as arguing against the treatment of primitive IE as a living language, with all the phenomena and the background of a living language; I only wish to voice a moderate skepticism as to the possibility of such procedure, and the validity of its results. For example, if we had only the modern Romance languages—French, Italian, Spanish, Portuguese, Catalan, Provençal, Roumanian—in their literary forms from 1800 on, could we deduce an accurate picture of the sentence syntax of Latin in the first century B.C.? It would be illuminating if some scholar would make such a study; we should then have an example wherein the correctness of the answer might be objectively evaluated, and from this we might gain a fair idea of the success which it is possible to reach in Indo-European reconstructions.

Passing now from general considerations, I would make a few specific comments. 22: The bahuvrīhi compound adjectives are taken as old verbless sentences; possibly my objection to this interpretation lies in a difference in our understanding of 'sentence': Hirt takes *barfuss* as 'bloss der Fuss'—though I cannot see why *bare-foot-boy* should not be a succession of substantives as in Chinese, without division into two sentences. To me the attributive quality in *barfuss*, *barefoot*, and Latin *anguipēs* may be original, acquired merely by the stringing along of the substantive ideas in a definite order. On this, cf. also page 26.

53: Umbrian *pequo castruo* is glossed by Hirt as *pecuum capita*; but *castruo* is now generally regarded as meaning *fundos*, and *pequo* is then an acc. pl. 59 ff.: Hirt regards all nominal cases as adnominal in use; this follows logically and correctly, if personal verb-forms are merely nominal forms in specialized uses, as Hirt argues (e.g., 99), in which view Benveniste, *Origines de la Formation des Noms en Indo-Européen* 173, concurs, though with reserves as to details. 82: Hirt's view that the *-nt-* participle had no feminine in prim. IE is based solely on the

lack of such a form in Latin (Idg. Gr. 3.331); but the normal gen. pl. of such ptcc. in Latin ends in *-ium*, which can hardly proceed from anything but the IE \bar{i} -stem fem., changed to an \bar{i} -stem in Latin and utilized for masculine as well as for feminine. 92: On absolutives, add the important article of Benveniste on Les absolutifs avestiques, in MSLP 33.393-402 (1935). 94-8: Hirt's view that the absolute phrase with a participle (Latin ablative, Greek genitive, Skt. locative, Germanic and Balto-Slavic dative) is an original IE construction, fails to convince me; there is a wide semantic divergence between the genitive of the Greek and the (originally) locative and instrumental of the others.

101: The accumulated evidence against *-ai* as a dative ending, in favor of which there has recently been only the termination of certain Greek infinitives, is now decisive, and I feel obliged to give up my argument that *-ei* became a monophthong in Latin before *-ai* and *-oi* reached this stage. This involves important changes from my views expressed in *Sounds of Latin* §127 and notes, with numerous correlative changes. 118.6-7: The passage from Xenophon's *Cyrop.* is mistranslated. 122: Of dependent clauses Hirt thinks that the primitive IE had a rich variety; but the understanding of his view may depend on the precise definition of dependency. It is to me hard to see dependency in all the various types of clauses which he lists, when on the other hand he insists that the accusative and infinitive of *oratio obliqua* are an independent sentence, coordinate with that in which the verb of saying (or equivalent) is found. I do grant, however, that there were some types of dependent clauses in prim. IE. 140-1: The evidence that IE $*k^we$ originally meant 'wenn' (= 'if', in all his examples) seems to be weak; I cannot follow his Latin *absque* = 'si abs' as original meaning. 164: Hirt regards Latin *quom* and *quam* as old pre-inflectional adverbs. 185: He is skeptical of the conventional interpretation of the use of *ne* and *ut* in Latin when introducing clauses which are the objects of words of fearing; his grounds appear to me to be inadequate. 209 *infra*: Hirt regards the division of IE into *centum*-languages and *satem*-languages as genetic, instead of merely descriptive of a later stage; an unfortunate error.

227 ff.: Hirt's views on the order of words in the sentence of prim. IE are based on the theory that originally the modifier stood after the modified, and that as time went on the modifier came oftener and oftener into the prior position. He cannot therefore accept the view that the word-order was originally entirely free, and that the first position in sentence or clause gave emphasis or prominence to the idea therein

expressed. But certainly the word-order in Latin, where not affected by other factors, is based on the principle that the emphasized idea comes first, and it is hard to look upon this as other than an old inherited practice.

Misprints are, as in the other volumes of the series, all too frequent especially in the linguistic examples: there are two in the Latin on page 230, two in the Latin on 249, and others in Lithuanian (107.6 up), Sanskrit (145.5), Greek (247.22), etc. The late Prof. C. E. Bennett always appears as Bennet. The quantities of vowels in Latin words are rarely marked, though a few markings appear on page 57, and in one or two other places.

With this volume Hermann Hirt ended his *Indogermanische Grammatik*; death overtook him before it came from the press, and his unfinished *Vorwort* was completed by his widow. Individually we may not agree with all his theories; some of his views, now current, will be discarded or revised; others, recently propounded and still sub judice, may not receive acceptance; but his work has been fruitful and stimulating, and there will always be a substantial residue which will give him an honored place in the history of Indo-European linguistic science.

ROLAND G. KENT

Origines de la Formation des Noms en Indo-européen. Pp. 224. By É. BENVENISTE. Paris: Librairie Adrien-Maisonneuve, 1935.

Benveniste proposes in his Preface to study the reconstructed primitive Indo-European language as though it were a living language, subject to changes and developments for which the underlying causes should be sought—not as a merely static repository of words and forms from which the scholar takes what he finds useful for his purpose. In his attitude he is clearly right, but in another way clearly wrong: for the scholar may with propriety draw materials from the reconstructed IE, in its fully developed form at the close of its period of unity, just before it begins to break up into dialects, with the same right with which the Romance scholar draws his materials from Latin without asking how the Latin forms came into being. On the other hand, if we can push our linguistic horizon farther back into pre-history, our control over our subject is greatly increased. This is what Benveniste seeks to do; I welcome his studies.

There are so many topics dealt with that the reviewer is at a loss where to begin. Chapter I deals with the alternation of *r* and *n* as stem-finals in substantives; lists of derivatives show that there is no

significance in the variation, and that *-r* and *-n* are added to roots with a strong grade of the vowel, *-er* and *-en* to roots with zero grade. In succeeding chapters other variations are dealt with in a similar manner, and shown to be devoid of original significance: *-i* and *-s*, *-u* and *-r*, *-r* and *-l* and *-n*. There is the same relation of grades in root and suffix. If the suffix has the strong grade, it is subject to ablaut variation in connection with further extensions (e.g., case-endings), but if the root has the strong grade the suffix does not thus vary. The addition of the thematic vowel *o* changes a substantive into an adjective (page 40), which may then in any of its forms for gender again become a substantive.

I pass over several interesting chapters and come to Chapter IX, in which there is a 'sketch of a theory of the root'. Benveniste accepts entirely the theory which started with de Saussure and has been developed by Kurylowicz and others, that several different consonantal 'shwas' (which Sapir identifies as laryngeals) existed in primitive IE and altered a following vowel to *e*, *a*, *o* respectively, and a preceding vowel to *ē*, *ā*, *ō*; for these and other points see Sturtevant's review of Kurylowicz's *Études Indo-européennes* in *LANG.* 12.141-4, and of Couvreur's *De Hettitische b*, in 10.210-3, with Sapir's footnote 4 in *LANG.* 10.276. But Benveniste did not receive Kurylowicz's work, just named, until his own volume was already in print, and he has therefore not operated with the \mathfrak{z}_4 of Kurylowicz (op. cit. 75, 254, etc.), a variety of \mathfrak{z}_2 which disappears in Hittite.

With this preliminary I pass to Benveniste's theory of the root in IE (apparently almost identical with Kurylowicz's, which however is less explicit). The root consists of CeC (consonant + \check{e} -vowel + consonant), and from it two types of stems were formed, which take the place of the old 'disyllabic roots': Stem I, CeC-C (root in strong grade, and suffix in consonantal form); Stem II, CC-eC (stem in weak grade, suffix in strong form). Thus **per-k-* as in Lith. *peršù*, **pr-ek-* as in Latin *precor*. The variations in the quality and the quantity of the vowels come from the 'shwas' which are there as the radical and suffixal consonants, and presently disappear. A root may have only one suffix; but Theme II may take a (consonantal) 'enlargement' in the zero form. Theme I, however, since it ends in a zero suffix, cannot take an enlargement, since enlargements are in the zero-grade, and two zero-grades in succession are impossible, and only one of the three elements (root, suffix, enlargement) may have the full-grade vowel. But after the enlargement may be added the vowel *o* which makes nominal stems.

'The addition of an enlargement or a suffix to a theme already suffixed and enlarged makes a base that is exclusively nominal' (171). Finite verb forms are by origin merely nominal forms.

In the last proposition (page 173), Benveniste agrees with Hirt, though with reserve upon the details. It seems to me that the general case for the origin of verbs from nouns is demonstrated; and it is clear that the 'consonantal shwa' theory is making such headway in IE studies that it is ultimately to work a revolution in the comparative grammars of IE. It remains to be seen how much of the alteration belongs to IE before the break into dialects; all that can be placed before the break may be disregarded by the student of (say) Germanic, who need only go back to the final stage of primitive IE, just as the scholar in comparative Romance need go back only to Latin (except for the non-Latin materials in his Romance), and not to primitive IE. But there is the further problem: Are we not to seek to relate the primitive IE to some other *Ursprache*, in the hope of reconstructing an even earlier and larger unity? If such comparison should be some day feasible, the doctrine of the consonantal shwas may be profoundly modified. Consider how dismally we should fail even to reconstruct the Latin verb-system by working only with the evidence of existent Romance forms of the last two or three centuries.

I am not however rejecting these new theories, but merely sounding a note of caution against a possible over-enthusiasm for theories which explain many things: perhaps too many things. Is there a panacea? Are not too many problems solved almost at a blow? And in particular I note one curious feature of Benveniste's theories, that there is no longer a combination like *-to-* or *-ne-*, which may alternate with *-t-* or *-n-*, but the vowel precedes in the strong form: *-t-* and *-et-*, *-n-* and *-en-* are the variants (159). This worries me not a little, for I have yet to meet a language where the syllabic division normally falls between a consonant and the following vowel; yet that is precisely the place where Benveniste's theory sets the etymological division between elements (except in the full-grade root, which, being initial, has only a consonant before its vowel). Is it likely that semantic segments—for that is what the etymological elements are, in the final analysis—and the articulation are so widely at variance? The point seems to me important, even though Watkin's analysis of Chichewa (Lang. Diss. No. 24) gives in many agglutinatively formed words a semantic value to each consonant or consonant cluster, and to each vowel, severally.

Then too the whole system seems too simple in its operation; lan-

guages never seem simple to me, in their practical spoken forms. But I may not take the space to add to the doctrines already given here the modifications which are to be found on pages 165, 170-1. The argument that the nasal infix is merely *-n-* and not *-ne-* : *-n-* is based on a comparison of Theme I **yéu-g-*, Theme II **yw-ég-*, with infix **yu-n-ég-*, cf. Skt. *yunákti* (159-62). The locative singular (Chapter V) is shown to be the undifferentiated word (casus indefinitus), cf. Skt. *ahar* and *ahan* 'by day'; the Greek adverbs such as *λίπα* really end in *-η*, and fall into the same category; those in *-i*, like **deksi* **anti* **medhi*, merely show another casus indefinitus in *-i*, for *-i* and *-r* and *-n* go hand in hand in stem functions, (cf. 5-7, 79-81, etc.). The infinitive, dealt with in Chap. VIII, is shown never to have a datival *-ai* in Greek, where the *-ai* of *-εσαι* and *-μεσαι* is only a postposition demonstrable also in Indic: with which all support for an ending *-ai* in the dative singular disappears. The last chapter (XI; 188-210) deals with the affixes containing the sound *dh*, and shows that stems formed with this suffix denote a state, usually a resultant state, referring to the subject and therefore having a middle or passive meaning.

A few specific points. 15: I am glad to see OP *vzrk* normalized *vazraka*, and not *vazar̥ka* or *vaz̥rka*. 29: The comment on the variation *t/k* in Gothic *aþn*, Oscan *acno-*, is hardly adequate; the consonants are radical, not suffixal. 108: There are two references to Brugmann, op. cit.; the last previous citation from Brugmann is on 97, where it is Brugmann-Thumb (the *Griechische Grammatik*), but what is meant on 108 is the *Grundriss* (cited page 89) II, part 1, ed. 2. 116: Bender deserves citation on the variation *w/m* in suffixes, though his work can be located by the reference to Sturtevant's *Hit. Gram.* 141: The reference to Varro, L. L., should be 6.2.11, and not 6.3.54. The assumption of a *p*-vowel at 158.4 and of a *b*-vowel at 163.1 is forcing the means to secure the end. 181.10 f.b.: Radical lengthening is assumed in a syllable that is not (originally) radical. There are some rather disturbing misprints in the linguistic examples, that are not noted in the *Additions et Corrections*, 211.

Yet despite my reserves about the theories, I have too great respect for Benveniste's scholarship, and too high an appreciation of his presentation, not to feel that this volume is an important contribution to the pre-history of Indo-European linguistic development.

ROLAND G. KENT.

Thesaurus Linguae Latinae Epigraphicae: The Olcott Dictionary of the Latin Inscriptions. Volume II, Fascicles 3-4 (*augur—Avillinlanus*).

Pp. 49-96. By LESLIE F. SMITH, JOHN H. McLEAN, CLINTON W. KEYES. New York: Columbia University Press, 1936.

For the preceding fascicles, see *LANGUAGE* 12.72 and 13.79. The article on *AUGUR*, begun on page 36b (I use a and b to indicate the columns on the pages), is ended on 49b. *AUGUSTALIS* occupies 52a to 73b, and *AUGUSTUS* 76b to 94b. *AUGUSTA* as a name or title of a person is included with *AUGUSTUS*, but as an element in the name of a ship or of a town is given in separate articles on 50b to 51b. *AVIA* 'grandmother' takes up 94b to 96a; interesting orthographic variations are listed at the beginning of the article: gen. *AVIAES* (once), dat. *AVIE* (4 x), nom. *ABIA* (3 x), dat. *ABIAE* (2 x), abl. *ABA* (once), nom. *AIA* (once), dat. *AIE* (once). Most of these variations are easily explained: the *b* for *v* and the *e* for *ae* represent confusion in the later pronunciation, and the *-aes* is by Greek influence. For *ABA* instead of *ABIA* at least three different explanations could be given; for the disappearance of the *v* in *AIA* and *AIE* we may note similar developments in certain Romance languages, of which these may be a premonitory trace, if they are not merely miswritings. Other words do not occupy much space, but some are quite interesting. And who would have thought that *AVIDUS* is found but twice in all the Latin inscriptions?

ROLAND G. KENT

Zuni. Pp. 137. By RUTH BUNZEL. (Extract from Handbook of American Indian Languages, 4.389-415) New York: Columbia University Press, 1937.

A new series of grammars of American Indian languages is appearing from time to time, continuing the famous Handbook of American Indian Languages, published in 1911 (part 1) and 1922 (part 2), under the editorship of Franz Boas as Bulletin 40 of the Bureau of American Ethnology. So far there have appeared in the new series Tonkawa by Harry Hoiyer, Quileute by Manuel J. Andrade, Yuchi by Gunter Wagner, and the present study. The new series on the whole shows a marked improvement over the old one. The last quarter century has seen a remarkable improvement in linguistic method, one that is as striking as that which marked the preceding period in which the foundations for scientific method in descriptive grammar of exotic languages were laid. This is not to say that good grammars were not written in the old days; Kleinschmidt's *Grönländische Grammatik* will always be a good grammar though it was written eighty years ago. It is now more and more possible to find relatively brief descriptions of languages that really make clear their nature. The foregoing remarks apply to lin-

guistic science generally, but it is fitting to make them here in connection with the modern continuation of an older handbook which holds such an important place in the history of the science.

Zuni is spoken by about 2000 Indians in and about the pueblo of Zuni, south of Gallup, New Mexico. The tribe has long been under Spanish influence and the language contains many Spanish, and fewer English, loan words. Certain phonetic tendencies, as the elision of glottal stops, are noted to be more common among younger people who speak English (438). Some scholars will hesitate to accept bilingualism as a cause of sound change, but the author implies only that this may have an accelerating influence, which seems justified.

The morphological techniques include only affixation (mainly suffixation, some prefixation), stem compounding, syntactic juxtaposition. The noun, pronoun, and verb are inflected, and there are uninflected particles. The verb includes a static type, predicating quality or state, as well as an active type. The verb is the most extensively inflected word-class, being inflected for number of subject and object (singular and plural), aspect (completive, durative, imminent; active, static, resultative), tense (present, past), mode (indicative, subjunctive, imperative, exhortative, optative). The remarkable thing about the verb inflection is that, extensive as it is, it does not include reference to person of the subject or object; number of subject and object is included. The pronoun is inflected for case, the noun apparently only for number (in spite of the author's statement 497 that it has cases). Many nouns have endings in absolute occurrence that are dropped when they enter into stem composition (with other nouns or with verbs).

About thirty pages of text, with interlinear and free translation, and grammatical analysis, accompany the grammar. The discussion is liberally illustrated with examples, which make it possible to see the application of the generalizations. In some cases, inadequacies in the treatment may be corrected by study of the examples. For example, the author gives (458) an important pluralizing prefix as *a-*. Actually, it is a *a-* before consonants, *aw-* before vowels, as is readily seen in the examples. The examples are all the more usable because the author analyzes them in parentheses after the quotation.

There are a number of small errors, some typographical, which are a bit disturbing. For example, *h* is omitted from the list of consonants (examples *aha* 'to take one thing' 479, *ho?* 'thou', *ehku* 'to go ahead' 471), *y* is listed twice. *l* and *w* are said (433) to change to *ɬ* and *p* before voiceless stops; the rule apparently should be 'in syllabic final generally',

for note that the same change applies, e.g., before *n* (voiced nasal), as in *ukwatetnan* 'having come in one by one' from *ukwatela*. *k̥* and *k'* are said to occur only before *i e ā* (432); actual examples show that they can occur also before *o*, and *k̥* also in syllabic final, e.g., *a'koyekā*, *a'kōk'ā*, 'they cried, cried out' (459, 462). *tcuwaḵon*¹ 'someone' (502), *isḵ'on* 'there' (502), *maḵ'on* 'to the young woman' (498), *luḵno* 'these' (502). This error is unfortunate since the contradictory cases are quite few (and therefore might be missed) and because it is coupled with a somewhat confusing pair of statements. We are told (430) that *ā* is a variant of *a* following *y k̥ k'*, and (432) that *k̥-k* and *k'-k'* are variants, with *k̥ k'* before *ā e i* and *k k'* before *o u*. If the examples here brought forward are correct, it is seen that the pre-palatal and mid-palatal stops contrast in two positions (before *a-ā* and *o*), and are mutually exclusive in three positions (before *i e u*); *a* and *ā* are then positionally conditioned variants of one phoneme, while *k̥* and *k* represent two phonemes with only partially overlapping distributions.

Transcriptional errors are also to be found, as shown by inconsistencies in spelling the same word (*na'potiye* 441, *nap'otiye* 451 'there were many deer'; *i'to* 442, *ito* 477 'to eat') and by other internal evidence. Let us hope that the author will strive to avoid such misprints in the dictionary of the language which we trust she will soon furnish us. We know it is no easy matter to make a publication absolutely correct, but in giving material in a foreign language for grammatical or lexical purposes, it is a vitally important matter to have dependable forms.

Despite these errors and a few other shortcomings, the treatment as a whole is convincing. This grammar is of special interest because Zuni is one of those languages that has not yet been found related to any other language. It is now seen that it has many striking structural resemblances to the Uto-Aztecan and Tanoan stocks. Resemblances to Uto-Aztecan include the general cast of the verb inflection, particularly the exclusion of references to grammatical person, change of final vowel in making different aspect forms, absolutive noun suffixes, liberal use of stem compounding, postpositions, prevailing CVCV stem form. Lexical resemblances, however, do not obtrude themselves. Serious attempts at comparison will have to wait until a dictionary appears.

MORRIS SWADESH

¹ *tc* represents *č*.

NOTES AND PERSONALIA

THE FOURTEENTH ANNUAL MEETING OF THE LINGUISTIC SOCIETY OF AMERICA will be held at Chicago, December 27-8, 1937, jointly with the Modern Language Association of America, headquarters and sessions being at the Drake Hotel. There will be also one joint session with the American Philological Association in Philadelphia, at the Hotel Benjamin Franklin, on the afternoon of December 30; on the morning of that day an informal gathering of members of the Society will be held at the same place if there should be a request for such a gathering made by those who cannot go to the Chicago meeting.

THE COMMITTEE ON NOMINATION OF OFFICERS FOR 1938 consists of Prof. Franklin Edgerton, Yale University, Chairman; Prof. L. C. Barret; Dr. Morris Swadesh. According to the plan outlined in LANGUAGE 6.267-8, members of the Society may send to the Chairman of the Committee their suggestions for nominations for the various offices; these should reach him not later than October 5, in order to receive due consideration.

THE EXECUTIVE COMMITTEE OF THE SOCIETY has found it desirable to recognize the existence of groups of linguistic scholars with specialized interests, and to plan for their organization within the framework of the Society. It has accordingly adopted, by a unanimous vote, the following regulations for the management of Groups, and hereby gives notice that Nos. 1 and 5 of the General Regulations will at the next annual meeting of the Society be proposed as an added Article IV of the Constitution, the present Articles IV, V, VI to be renumbered V, VI, VII respectively; it will also present, for approval, the other regulations which now follow:

GENERAL REGULATIONS CONCERNING GROUPS:

1. To meet the needs of scholars with specialized linguistic interests, Groups may be organized, on terms approved by the Executive Committee.
2. Enrollment in the Groups shall not be limited to members of the Society, nor shall non-members of the Society who enroll in the Groups

be under obligation to become members of the Society; but the Society reserves the right periodically to direct the attention of such non-members to the advantages of membership in the Society.

3. The Secretary and Treasurer of the Society shall collect the dues, keep the membership rolls, and distribute the Group's regular publications, unless provision be made for other arrangements. Apart from these services the Groups shall not, without special action by the Society be a charge on the treasury of the Society.

4. Members of Groups shall have the right to offer papers for reading at the meetings of the Society; they may offer their writings to the Editor of the Society's publications if they are also members of the Society.

5. The Society shall, through its officers and members, cooperate with the Groups in the furtherance of their aims.

6. Each Group may have its own Managing Committee, with a Chairman and a Secretary, and such other Committees as are needed in its work.

GROUP FOR PHONEMICS:

1. A Group for Phonemics is hereby established, which, along with other national societies or groups, shall be a component part of the International Association for Phonology (Phonemics), founded at Copenhagen August 29, 1936; general secretary, Prof. Dr. N. Trubetzkoy, Tuchlauben 13, T.25, Vienna I, Austria.

2. The object of the Group is to promote and to coordinate phonemic research in the languages of the world.

3. The dues of the Group shall be One Dollar per annum, beginning with 1937; of which sum not less than the equivalent of Ten French Francs shall be transmitted to IAP, in accordance with its regulations.

4. The Secretary of the Society shall transmit the membership roll of the Group to the Secretary of the IAP, for record.

5. The Secretary of the Society shall secure from the Secretary of the IAP the proper number of bulletins and other printed matter distributed to members, and shall send one copy to each member of the Group.

6. The Managing Committee of the Group shall be, for 1937, Edward Sapir, Chairman, H. Kurath, W. F. Twaddell, R. G. Kent.

GROUP FOR AMERICAN INDIAN LINGUISTICS:

1. A Group for American Indian Linguistics is hereby established, pursuant upon a meeting of Americanists held in New York, April 25, 1937.

2. The object of the Group shall be the recording and the study of American Indian Languages in all their aspects, including their relation to and bearing on other disciplines.

3. The dues of the Group shall be the subscription price of the journal which is established as a medium of publication. Such dues shall be paid at the beginning of the period for which each volume is issued.

4. All publications of the Group shall be listed as Special Publications of the Society, and their distribution and sale shall be managed by the officers of the Society.

5. The gross receipts from dues and the net receipts from the sale of publications of the Group shall be set aside for the cost of printing publications of the Group.

6. The meetings of the Group for the reading of papers shall normally be held jointly with the sessions of the Society, when either joint sessions or separate sessions may be held; but the Group may at its pleasure organize meetings with the American Anthropological Association or with other organizations, either at the time of the Society's meeting or at other times of the year.

7. The Group, through its Committee or Committees, shall organize the work of research and publication, and seek financial support for the same; and shall perform such other duties as may from time to time become necessary or desirable for the achievement of its aims.

8. The Managing Committee of the Group shall be, for 1937, Franz Boas, Chairman, L. Bloomfield, A. L. Kroeber, E. Sapir, M. Swadesh.

The Group for Phonemics and the Group for American Indian Linguistics have both already attracted a very satisfactory enrollment, and invite others, whether or not members of the Linguistic Society, to enroll with them. The membership in these groups will be printed in the annual Bulletin which presents the List of Members of the Society.

EVA FIESEL, Visiting Professor of Linguistics in Bryn Mawr College, and a member of the Linguistic Society of America from 1934, died on May 27, 1937, in New York, after an illness of three months.

She was born on December 23, 1891, the daughter of Karl Lehmann, Professor of German Jurisprudence in the University of Rostock, and she received the degree of Ph.D. from the University of Rostock in 1920. After several years occupied chiefly with study and research, she was given a Lehrauftrag in the University of Munich in 1932, where she lectured on Etruscan with remarkable success. After about eighteen

months she was suddenly dismissed by the German government. Fortunately she had already been given a stipend by the Rockefeller Foundation for carrying on her Etruscan researches, and this enabled her to get through the next year, which she spent in Italy, devoting her time to the study of unpublished Etruscan documents in various museums. In 1934 she came to America, where for two years she was Research Assistant in Etruscan at Yale University. In September 1936 she went to Bryn Mawr as Visiting Professor of Linguistics on an appointment for three years. At the time of her death arrangements were being undertaken to make the appointment permanent.

The study of the Etruscan language has for many years attracted the attention of scholars of greater enthusiasm than discretion, and it is still a field in which dilettantism runs riot. Mrs. Fiesel, however, followed a tradition of sound and painstaking scholarship, succeeding such men as Danielsson and her own teacher, Gustav Herbig. Her own contribution to method consisted in more constant and painstaking attention to chronology, geography, and the monumental context of the inscriptions. In spite of the brilliance of two or three of the surviving Etruscologists, it is not at the moment clear who can carry on in this pedestrian but reliable fashion.

Professor Fiesel was the author of *Das grammatische Geschlecht im Etruskischen* (Göttingen, 1922), *Die Sprachphilosophie der deutschen Romantik* (Tübingen, 1927), *Namen des griechischen Mythos im Etruskischen* (Göttingen, 1928), and the article *Etruskisch*, in *Grundriss der indogermanischen Sprach- und Altertumswissenschaft* (Berlin, 1931). She also published numerous articles and reviews in German, Italian, and American periodicals. At the time of her death she was engaged upon a book to be called *Materials for a Grammar of the Etruscan Language*. The plan for this book was formed many years ago, and the work had gone far enough so that one can say with confidence that it would have provided a firm foundation for all future work on this difficult language. Until someone carries through essentially the same plan, we must expect Etruscan studies to remain in their present backward condition.

During the few years of her life in the United States, Mrs. Fiesel had made many warm friends and had demonstrated anew the fertility of her scholarship and the inspiring quality of her teaching. There was every reason to expect for her a career even more brilliant than the one cut off so strangely in her native land.

EDGAR H. STURTEVANT

HERMANN COLLITZ, first President of the LINGUISTIC SOCIETY OF AMERICA, died on May 13, 1935, in his eighty-first year (cf. LANG. 11.286). On February 4, 1930, a group of his students and friends had presented to him, on the occasion of his seventy-fifth birthday, a volume of Studies in Honor of Hermann Collitz. The bibliography of his published works filled pages 7-15 of that volume. We take this occasion to bring that bibliography up to the time of his death:

1930 Review of Fritz Braun, Briefe von R. Rask an J. H. Halbertsma; LANGUAGE 6.195-201.

Zwei Hapax Legomena der gotischen Bibel; Curme Volume of Linguistic Studies 60-83 (Language Monograph No. 7).

1931 The Avestan Prefix *aš*; JAOS 51.160-3.

A Group of Clipped Words in Latin; PAPA 62.xxii.

1933 The Etymology of *augur*; PAPA 64.lxiii.

König Yima und Saturn; Oriental Studies in Honour of Cursetji Erachji Pavry, edited by Jal Dastur Cursetji Pavry, 88-108, Oxford University Press, London.

1934 Baltimore—What does the Name mean? Johns Hopkins Univ. Magazine 22.133-4.

DR. J. D. M. FORD, Professor of the French and Spanish Languages at Harvard University, is the Laetare Medalist for 1937, of the University of Notre Dame.

The Laetare Medal has since 1883 been conferred annually by the University of Notre Dame on some leader of the Catholic laity in the United States, in recognition of merit and as an inspiration to greater achievement. The Medal is a solid gold disc suspended from a gold bar; it bears on the obverse the words *Laetare Medal* and the sentence *Magna est veritas et praevalabit*, and on the reverse the name of the University and that of the recipient.

President John F. O'Hara of the University of Notre Dame, in a letter to the Secretary of the Linguistic Society, writes: 'I see a timeliness in Professor Ford's selection for this year's Medal in that he bears aloft the torch of Spanish culture at a time when this culture is dishonored in its own house.'

The Medal was presented to Professor Ford in connection with the Commencement exercises of the University, early in June.

DR. EDGAR H. STURTEVANT of Yale University has been appointed Chairman of the American Council of Learned Societies Provisional

Committee which is charged with undertaking a survey of the field of Mediterranean and Near Eastern Studies, with defining the field for purposes of development, and with formulating a programme of activities appropriate for the Council to sponsor.

DR. JOSEPH E. A. ALEXIS of the University of Nebraska is Professor of Germanic Languages and not of Romance Languages, as was by error stated in LANGUAGE 13.82.

DR. MOSHÉ BERKOOZ, whose doctoral dissertation was distributed with the last issue of LANGUAGE, is now Teacher of Bible and History in the Gymnasium Herzlich, Tel-Aviv, Palestine.

DR. GEORGE SHERMAN LANE goes to the University of North Carolina this autumn as Associate Professor of Germanic and Comparative Linguistics.

DR. GEORGE J. METCALF has gone to the University of Kansas as Assistant Professor of German.

DR. MARIO A. PEI is now at Columbia University as Assistant Professor of Romance Languages.

DR. LEON P. SMITH, JR. has gone to the University of Chicago as Assistant Professor of Romance Languages and Assistant Dean of Students.

THE FOLLOWING NEW MEMBERS FOR 1937 were received into the LINGUISTIC SOCIETY subsequent to the last published list, and up to June 4, 1937:

Curtis Adler, Attorney-at-Law, 690 East 92nd St., Brooklyn, New York;
Semitic and Romance etymology.

Stephen John Bagan, Medical Student, 12 Cobb Terrace, Chapel Hill, N. C.; *Slavic languages.*

J. M. Cowan, Ph.D., Research Associate in German and Experimental Linguistics, State University of Iowa, Iowa City, Iowa.

Ernest Faber Haden, Ph.D., Professor of French, McMaster University, Hamilton, Ont., Canada.

Einar I. Haugen, Ph.D., Associate Professor of Scandinavian Langs., University of Wisconsin, Madison, Wis.

Lee S. Hultzén, Ph.D., Lecturer in Public Speaking, University of California at Los Angeles, West Los Angeles, Calif.; *phonetics, American pronunciation.*

John J. Lund, Ph.D., Instructor in Scandinavian Languages, Univ. of California at Los Angeles; 947 Ninth St., Santa Monica, Calif.

Warren Francis Manning, M.A., Instructor in French, West Virginia University; 123 S. Walnut St., Morgantown, W. Va.

Harlan Sylvester Perrigo, LL.B., Lawyer, 530 W. 113th St., New York City; *Indo-European.*

Dr. Fang-Kuei Li has been appointed Visiting Professor of Chinese Linguistics at Yale University for two years, beginning next fall. Dr. Li is a brilliant and thoroughly trained linguistic scholar. He studied Indo-European, American Indian and General Linguistics at the University of Chicago (Ph.D., 1928), under Professors Buck, Sapir, and Bloomfield. Since his return to China he has done distinguished work, notably in Chinese and Tai dialects, as a member of the research staff of Academia Sinica (Nanking), which has now granted him leave to found the first school of linguistic science in the Far Eastern field in America. He is expected to arrive in this country in September; in the meantime Professor Franklin Edgerton, Chairman of the Department of Oriental Studies in Yale, would be glad to hear from any scholars or advanced students who might wish to take work with Dr. Li.

STRUCTURAL TYPES OF THE IE MEDIO-PASSIVE ENDINGS: *R* AND *T* SEMES

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1. In this paper* the writers will attempt to depict in their mutual relations the several types of verb-forms which evolve into the so-called medio-passive, deponent, etc. categories in the historical IE languages as these types seem to have existed in late IE times; and to indicate subsequent developments (e.g., growth of some types, decay of others) that appear to have occurred in the prehistory of the continuant languages. It is our purpose to confine ourselves more or less to descriptive morphology, avoiding, on the one hand, inquiry into the ultimate origin (non-finite verbal, substantival, etc.) of the forms here discussed; and, on the other, as far as possible, entanglement with semantic and syntactic dogma of every sort.¹

2. Structurally, the forms found in the continuant languages are of four types (with another, obviously of late development, peculiar to Indo-Iranian):

1. *Endingless* (**E**). Those which consist of the mere verb-stem without addition of a personal ending, sign of voice, mood, or tense, e.g., Hitt. sg. 3 *esa* and Skt. ipf. sg. 3 *adruha*.

2. *Prosopic* (**P**). Those which show, added to the stem, only a personal ending in the narrower sense of the term, i.e., an element

* This paper was read at the 1936 session of the Linguistic Institute at the University of Michigan, Ann Arbor, Michigan. Our warmest thanks are extended to Dr. Fries, Director of the Institute, to Prof. E. H. Sturtevant of Yale, for his detailed criticism of the paper, and to our friendly critic, Prof. L. H. Gray, of Columbia; responsibility for the views expressed in this paper, however, must rest solely with the authors.

¹ Cf. Brugmann, *Gdr.* 2.3 §603-6; Hirt, *Idg. Gr.* 4 §71, wherein is cited most of the literature before 1927; add, however, J. L. Jones, *The Development of the Verbal r-forms*, in *Miscellany* presented to Kuno Meyer 198-206 (Halle a. S. 1912); E. F. Claffin, *LANG.* 5.232-55 (1929); E. H. Sturtevant, *LANG.* 7.242-51 (1931); W. Petersen, *LANG.* 12.157-74.

unqualifiedly identified with a particular person and number. These elements, which we call *prosopes*, to distinguish them from other personal endings which consist of or contain some element not thus unqualifiedly identifiable, occur, as is well known, in the two series 'primary' and 'secondary', e.g., IE primary sg. 3 *-tai* in Skt. *bhāratē*, Gk. *φέρεται*, Phryg. *αδδακεται*; and secondary IE *-to* in the Skt. 'inj.' *bhārata* and ipf. *ābharata*, Gk. *(ἐ)φέρετο*, Hitt. *yata*, Toch. *praksāt*.²

TABLE 1³

	E	S	P ¹	P ²	PS	SP
Skt.	<i>aduha</i> (ipf.)	<i>duhré</i> (pl. 3)	<i>bhāratē</i>	(<i>ā</i>) <i>bharata</i> (ipf.)	.....	<i>duhrātē</i> (pl. 3)
Gk.	<i>φέρεται</i>	(<i>ἐ</i>) <i>φέρετο</i> (ipf.)	.....
Gmc.	<i>batrada</i>	.....	.....
Hitt.	<i>esa</i>	<i>esari</i>	<i>lukate</i>	<i>yata</i>	<i>yatari</i>	
Toch.	<i>pkāmār</i> (ipv. sg. 2)	.....	<i>praksāl</i>	<i>prakāstār</i>	
Phryg.	<i>αδδακεται</i>	<i>αββιπερο?</i>	<i>αδδακερο</i>	
Lat.	<i>sequere</i> (sg. 2)	<i>ducitur</i>	
P-Ital.	<i>ferar</i> (sbj.)	<i>tefte</i>	<i>emantu</i> (sbj. pl. 3)	<i>emantur</i> (sbj. pl. 3)	
OIr.	<i>-ber(a)r</i>	{ * <i>-tri</i> (cf. 5 n. 13) * <i>-tro</i>	
Welsh	<i>cerir</i> (MW)	.....	.....	<i>canhator</i> (OW)	

3. *Semic* (S). Those which show, added to the stem, only some element which, whether originally of impersonal connotation or not, reveals an eventual indifference to person and number as such, by occurring alone or in combination with other inflectional elements, in forms of different persons and numbers, although prevailing, of course, in the sg. 3 so-called. Such elements we call *semes*, and the existence of one such, *r*, is rather generally recognized: Hitt. sg. 3 *esa-ri*, but compare also 'sg. 2' *karusiya-ri*; Toch. ipv. 'sg. 2' *p-kāmā-r*, Umb. sbj. sg. 3 *fera-r*, OIr. pass. conj. sg. 3 *-ber(a)-r*, MWelsh impers. prs. *ceri-r*. It is noteworthy that in Hittite and Celtic there occur in the preterital tenses semic forms characterized not by *r*, but by a dental, e.g., Hitt.

² All Tocharian forms cited belong to Dialect A and are taken from Schulze, Sieg, und Siegling, *Tocharische Grammatik* (1931), abbreviated to SSS.

³ Because of its peculiar importance we here rearrange, with some additions,

esa-t(i), also *kesa-t*, OIr. pass. conj. prt. sg. 3 *-bre-th*, Welsh impers. ipf. *ceri-d*.

4. *Prosoposemics (PS)*. Those which show, added to the stem, a prosope plus a seme. Such complex personal endings we call *prosoposemes*, e.g., Hitt. sg. 3 *ya-ta-ri*, pl. 3 *ya-nta-ri*, Toch. *praska-tä-r*, *praska-ntä-r*, Phryg. *αδδακε-το-ρ*, Lat. *duci-tu-r*, *ducu-ntu-r*.

[*Semato-Prosopics (SP)*. Type Skt. pl. 3 *duh-rā-tē*, cf. 15 below.]

5. Table 1 will illustrate these types; unless otherwise indicated, the forms cited are prs. ind. sg. 3.

the paradigmatic material contained in Sturtevant's Hittite Grammar (abbr. to SHG) §§465-6, according to our descriptive analysis:

TABLE 1A

Prs. sg. 1	Endingless	Semic	Prosopic	Prosoposemic
sg. 2		<i>karusiya-ri</i>	<i>pahs-ta</i>	<i>ya-ha-ri</i> <i>es-haha-ri</i> <i>kes-ta-ti</i> <i>es-ta-ri</i> <i>ya-ta-ri</i>
sg. 3	<i>esa</i>	<i>esa-ri</i> <i>wara-ni</i>	<i>ya-ta</i>	
pl. 1			<i>es-wasta</i>	<i>es-wasta-ti</i> <i>ar-wasta-t</i>
pl. 2			<i>ya-tuma</i>	<i>sarkaliya-tuma-ri</i>
pl. 3			<i>ya-nta</i>	<i>ya-nta-ri</i>
Prt. sg. 1			<i>!ltapar-ha</i>	<i>ya-ha-t</i> <i>ya-haha-t</i> <i>es-ha-ti</i> <i>kes-ta-t</i> <i>ya-ta-ti</i> <i>ya-ta-t</i> <i>su-ta-ti</i>
sg. 2		<i>kesa-t</i>		<i>priya-wasta-ti</i> <i>kes-tuma-ti</i>
sg. 3		<i>esa-t</i> <i>esa-ti</i>	<i>!pastarnuwa-ta</i>	<i>ya-nta-t</i> <i>kesa-nta-ti</i>
pl. 1				
pl. 2			<i>!ya-nta</i>	
pl. 3				
ipv. sg. 1				<i>wa-ha-ru</i> <i>ar-haha-ru</i>
sg. 2			<i>e-hu</i>	<i>es-hu-t</i> <i>seskiya-hu-ti</i>
sg. 3		<i>esa-ru</i> <i>wara-nu</i>		<i>ya-ta-ru</i>
pl. 1				
pl. 2				<i>ya-tuma-t</i> <i>ke-tuma-ti</i>
pl. 3				<i>ya-nta-ru</i>

(The exclamation mark before a form indicates a diagonal wedge written singly or doubly in the texts, and prefixed to certain forms.)

ENDINGLESS

Such forms occur as medio-passives only in Hittite and Sanskrit (the obvious active parallel being, of course, the thematic ipv. sg. 2 of the type Skt. *bhāra*, Gk. *φέρε*, etc.). Hittite, beside the prs. sg. 3 *esa* previously cited, offers *kesa*, *tuhša*, *saleka*, *neya*, and *āra* (cf. the prosopic *arta* 'arrives'), if we are correct in interpreting the formulaic phrase *nata āra* 'is illegal, not customary' ('es geht nicht') as containing a verb, although most scholars regard *āra* in this phrase as a noun.⁴ Sanskrit, beside *aduha* and the precisely similar *āisa*, which we agree with Sturtevant⁵ in regarding as survivals of type E, has two further groups of forms which seem to belong here: (1) the middle ind. prs. sg. 3 in *-ē* instead of *-tē*, and (2) the so-called passive aorist ind. sg. 3 in *-i*. The first of these has been subjected to some analogical recasting; we may suppose that such forms as **duha*, presumably a thematic byform of a stem normally athematic in Sanskrit, were originally timeless 'injunctives', but that with the increasing importance of tense categories such forms came to be felt as imperfects, and tended to receive augment. Beside *aduha* there arose the present *duhē* on the analogy of the relationship of the prosopic pair ipf. *ābharata* : *bhāratē*,⁶ a later type, to be sure, but one that was already predominant in Indo-Iranian times. The mere numerical preponderance of presents in *-ē* over imperfects in *-a* should not lead us to regard the latter as analogical creations based upon the former, since presents of all sorts are far more frequently cited than are imperfects; and once established, these presents and imperfects could be formed in both the thematic and athematic conjugations. As for the aorist passives in *-i*, such forms could arise either from *exē*-bases with the ablaut-grade NR, or from the *exei*-bases with the ablaut-grade NZ, e.g., Vedic *jāni* < **jēnā*, or *ātāpi* (with secondary lengthening) < **tepi*; the assumption of a base **tepei* beside **tepe* receives some support from Lat. *tepē-re*, *tepi-dus*, OCS *topiti*. The strengthening of the vocalism of the first syllable of the root, normally seen in *jāni*, *ātāpi*, must be due to the association of this type with the prosopic first (root) aorists of the type *āsthāt*; and the few Vedic forms which do not show such strengthening are probably genuine survivals, cf. (from Iranian) occasional unstrengthened forms like Gath. Av. *apiva'ti*. Lastly, this type, once established in bases of the sort indicated, spread in Indo-

⁴ SHG §§135, 191.

⁵ Op. cit. §429.

⁶ Others may prefer to regard sg. 3 *duhē* as having been influenced by the middle type sg. 1 *duhē*.

Iranian times to other types of bases as well; it is conceded that most of the recorded forms are analogical, as may well be the case even where cognates occur in Avestic and Old Persian, cf. Gath. Av. *vāčī*, Skt. *āvāci*, and OP *adāriy*, Skt. *ádihāri*. The simple structure of this type, its restriction to Hittite and Indo-Iranian, and its paucity even there (apart from the Indo-Iranian analogical extensions), strongly suggest that it is an extremely archaic type, dating from a period when Indo-European verbal inflection was of primitive simplicity.

PROSOPICS

The distinction between prosopes and prosoposemes is of significance only in the middle inflection, since the active is nowhere prosoposemic.⁷ Prosopic inflection is characteristic of Indo-Iranian, Greek, Germanic, and possibly Proto-Slavic, whereas prosoposemic inflection (to a considerable extent concurrently with the prosopic) is characteristic of Hittite, Tocharian, Phrygian, Italic, and Celtic. Into the vexed problem of historical origins and the inter-relationships of the primary secondary active and middle prosopes (e.g., *-ti*, *-t*; *-tai*, *-to*) we need not go, although we share the rather general view that the secondaries are more primitive than the primaries;⁸ but as to the semantics involved in the establishment of voice categories, and the distribution of the prosopes to active or middle function, we reserve judgment.

It is conventional to take the distribution in Sanskrit, Greek (and, in the main, Hittite as well) as a standard of reference; but when the forms of Tocharian, Irish, and Slavic are compared with these, a number of striking discrepancies are at once revealed. Tocharian and Irish agree in using for both voices as a pl. 2 a prosope which in the older languages occurs only as an active, e.g., Toch. act. prs. and med. prt. *-c*, Irish act. and dep. prs. simplex *-the*, conjunct *-d*, and on the other hand OCS act. sg. 3 *-tb*, pl. 3 (—) *tb* appear to contain middle *-to*, *-nto*.⁹ Indeed, in Hittite the prosope apparently identical with that of Gath. Av. *spasyā*, Gk. *φέρω* occurs only in the middle, as in the prosopic sg. 1 **taparha*. It is quite possible that some of the dual and plural prosopes are in origin conglomerates,¹⁰ but for the late IE period with which we are primarily concerned, all the prosopes can be regarded as unitary morphemes.

⁷ Unless, indeed, Arm. act. ipf. sg. 2 *bereir*, sg. 3 *berēr*, etc. are so to be considered; cf. J. Charpentier, *Die Verbalen r-Endungen der idg. Sprachen* 113-8 (1917).

⁸ Cf. Meillet, *Actes du 1^{er} Cong. de Linguistes* 111.

⁹ Hirt, *Idg. Gr.* 4. §§46, 81-82.

¹⁰ L. H. Gray, *LANG.* 6.229-52 (1930), *passim*.

In the languages characterized by prosopic inflections much use is made of the distinction between primary and secondary prosopes in both voices; in the languages characterized by prosoposemic middle inflection, not only is the prosopic element of the prosoposeme normally secondary, but the concurrent prosope is also prevaillingly secondary, as Hitt. *lukata*, Toch. med. prt. sg. 3 *praksāt*, Lat. sg. 2 *sequere* < *seq^ee-so, OIr. act. and dep. ipf. sg. 3 of the type *-bered*. Yet traces of the primary middle prosopes persist in a number of these languages: Hitt. *lukate*¹¹ originally 'it grows light', but stereotyped and felt as an adverb 'next day', unlike its more vigorous congener *lukata*, which never lost its verbal character. Phryg. *αββερεται*, *αδδακεται* beside *αββιρετο* < ρ>, *αδδακετορ* with no apparent difference in meaning; Umb. ind. prs. pass. sg. 3 *teṛte* 'datur', beside the secondary prosopic *emantu* (both conventionally regarded as prosoposemics that have lost final *r*,¹² but which we consider rather surviving prosopics). Lastly, the co-existence of OIr. dep. conj. sg. 3 *-airigedar*, pl. 3 *-airigetar* with simplex sg. 3 *a(i)rigidir*, pl. 3 *a(i)rigidir* seems to imply that the presumable early Proto-Irish prosoposemes *-tor*, *-ntor* were recast and at the same time differentiated into *-tro*, *-ntro* for the conjunct forms, and *-trai* > *-trī*, *-ntrai* > *-ntrī* for the simplices.¹³ But such an analogical recasting and differentiation is possible only on the assumption that at this period the primary prosopes *-tai*, *-ntai* were still in existence beside the secondaries *-to*, *-nto*. It is thus highly probable that the primary as well as the secondary prosopes once existed in general late IE, which is not to say that they were functionally distributed as in historic Sanskrit and Greek.

In general, where the prosopes had to face the competition of the unquestionably more recent prosoposemics, the former tended to decay, as witness their very restricted incidence in Hittite, Italic, and historic Old Irish; but there are some striking exceptions. Tocharian came consistently to assign presential value to prosoposemics, preterital to prosopics. In somewhat sharp contrast to the Tocharian stands Hittite, wherein the presential prosopics pass unchallenged by later copyists,

¹¹ So SHG §423, with whose further comment, however, the writers are not wholly in agreement.

¹² C. D. Buck, *Grammar of Oscan and Umbrian*¹ §103.4 (1904; unchanged in the 2nd ed.); cf. however A. W. M. Odé, *De Uitgangen met R van het deponens en het passivum in de indoeuropese talen* 11, Haarlem (1924).

¹³ Thurneysen, *Hdb. d. alt-Irischen* §570 (1909). The one-time immediate juxtaposition of the *t* and the *r* is proved by the absence of syncope in the preceding syllable (e.g. *a(i)rigidir* as against passive *a(i)rigithir*).

whereas preterital prosopics are marked with the so-called Glossenkeil,¹⁴ e.g., sg. 1 **taparha*¹⁵ (Hatt. 1.27), sg. 3 **pastarnuwata* (KUB 5.24.2.47), pl. 3 **amasanta* (KUB 12.26.2.18), and **yanta* (!) (Fried. Vert. Kup. 16 C ii.8, 10). Thus it is apparent that insofar as any functional apportionment of prosopics had been made in 'classical' Hittite times, it was to the present rather than to the preterite; it is by no means necessary to hold with Hittite scholars in general that the forms so marked are foreign, 'especially Luwian'.

SEMICS

6. We are not inclined to dispute an ultimate identity of the middle *-r* seme with the so-called perf. pl. 3 ending seen in Skt. *mimikṣúr*, Lat. *tutudēre*, Hitt. *kwener*, although this does not mean that in its middle use the *r* was essentially plural, as it admittedly became in Indo-Iranian;¹⁶ for such forms as Hitt. *esari* and Toch. *pkāmār* (not available to Dottin), reveal that the plural connotation was unoriginal. In its middle use, at least, its late IE form was doubtless post-vocalic *-r*, post-consonantal *-r*, and the various vocalic additions which figure in certain of the forms to be discussed are all analogical. Middle *-r* semics exist vestigially in Indo-Iranian; Skt. ipf. pl. 3 *aduhra*, prs. pl. 3 *duhré*, *śéré*, Av. pl. 3 *sōire* (all with purely analogical final vowel); Hitt. ind. prs. sg. 3 *esari*, ipv. sg. 3 *esaru*, the final vocalism in *-ri* and *-ru* also being analogical, cf. act. ind. *harzi*, ipv. *hartu*; Toch. ipv. sg. 2 only, cf. *pkāmār* above; P-Italic, (the recorded examples are all subjunctive presents or perfects), Umb. prs. sg. 3 *ferar* and Pael. *lifar* (see Kent, IF 53.44), Osc. pf. sg. 3 *sakraffir*; OIr. ('passive' forms made only in certain tenses of the strong verbs and nowhere available for the pl. 3, all corresponding forms of the weak verbs as well as the other tenses of all verbs, being prosoposemic) sg. 3 prs. ind. *-ber(a)r*, ipv. sg. 3 *berar*, Middle Welsh impers. ('autonomous') prs. *cerir*, ipv. *carer*, and sbj. *car(h)er* (it is clear that some of the Celtic forms once had a vowel after the *-r*, but this must have been analogical, as in Indo-Iranian and Hittite). The historical semics are not entirely confined to the third person, note the 'sg. 2' forms of Hitt. *karusiyari*, and the regular ipv. sg. 2 of Tocharian.

¹⁴ A paper on the 'Glossenkeil', by Schwartz, will appear in a forthcoming issue of *Archiv Orientalní*.

¹⁵ For an etymology of *tapar-* 'rule, etc.' not hitherto suggested to our knowledge, cf. OCS *dobrŭ* 'good', OHG *taphar* 'fest, stark', Lat. *faber*, etc.

¹⁶ Dottin, *Les Désinences en R* 28 §4, end (1896).

7. The most striking characteristic of the *-r* semes has already been mentioned, i.e., their restriction in most areas to non-preterital tenses. Hittite and Celtic exhibit a further remarkable parallelism in forming apparently semic preterites, in both areas characterized by a dental, cf. Table 2:

TABLE 2

prs.	ind.	Hittite	Middle Welsh	Old Irish	
				conjunct	simplex
	sbj.	<i>esari</i>	<i>cerir</i>	<i>-ber(a)r</i>	<i>berir</i>
	ipv.	.....	<i>car(h)er</i>	.....	.....
		<i>esaru</i>	"	.....	<i>berar</i>
<hr/>					
ipf.	ind.	.....	<i>cerit</i>	<i>-berthe</i>	.....
	sbj.	.....	<i>cer(h)it</i>	"	.....
prt.	ind.	<i>esal(i)</i>	<i>carat</i>	<i>-breth</i>	<i>brethe</i>
plpf.	ind.	.....	<i>carassit</i>	.....	.....

In the light of these comparisons we are unable to follow Sturtevant in his assumption (based on the occasional occurrence of *-t* prosoposemics with ostensible presential value), that 'probably *-ti* was once a part of the undifferentiated middle tense, functioning more or less as does *-ri* in our texts',¹⁷ for the Hethito-Celtic parallelism is too striking to be dismissed as mere coincidence. On one side it is supported by the general status of the P-Italic *-r* semics and the Tocharian prosoposemics, all of which are presential. The existence of such a form as Skt. ipf. *aduhra* is not fatal to our supposition, as it comes from a language in which the semic type did not flourish, and wherein its few vestiges are inordinately subject to analogy and contamination.

8. What now is the nature of the *t* or other dental that figures in the Hittite and Celtic preterital tenses of the middle? It seems improbable that it has anything to do with the primary prosope *-tai*.¹⁷ In Hittite the element is used much as is the *r* seme, tense distinctions aside, and appears equally entitled to such classification. The Celtic *-t* forms have been, for the most part, connected with the passive participle in *-to*.¹⁸ Morris Jones, who derives all Welsh imperfects from IE optatives,¹⁹ takes the imperfect impersonal in *-it* from the IE middle opt. sg. 3 (prosopic) in *-oito*, and regards the preterite and pluperfect as

¹⁷ SHG §§ 423-4.

¹⁸ Thurneysen, Hdb. d. alt-Irischen §712; Pedersen, Vgl. Kelt. Gr. 2 §628.

¹⁹ J. M. Jones, A Welsh Grammar Historical and Comparative §§171.2.2, 180.4.3, 181.6 (1913).

analogical to this; but neither view is wholly satisfactory, all the more because, syntactically, these forms are used in quite the same way as the *r* semics. Now, it seems reasonable to recognize the existence of a late IE dental seme whose connotation was such that it could be appropriately assigned to just those tenses of the medio-passive for which *r* was inappropriate, and that in these two dialectal areas fullest advantage was taken of the possibility. The connotation would have been at once 'non-active'²⁰ and preterital, and it is possible, indeed quite probable, that between this seme and the wide-spread *-to-* participle a real relationship exists. From the meagre evidence at hand, this preterital seme may have been in origin merely *-t*, as occasionally in the Hittite semics *esat*, *kesat*; the extended Hitt. form *-ti* must be due to the analogy of the presential seme *-ri*. Although both the *r* and the *t* semes had been available since late IE times, it would appear that the former came earlier into regular paradigmatic usage in Hittite, since (1) the *r* seme always has analogical final vocalism, while the *t* seme occasionally occurs without it, and (2) when the analogical final vocalism *-i* comes to be added to the *t* seme, sufficient time must have elapsed for the specific association with preterite tense-concept to have been lost, and a more general association with the medio-passive concept to have grown up.

PROSOPOSEMICS

9. It is obvious that prosoposemics could arise only where both prosopics and semics were in relatively vigorous use. That either or both of these older forms should eventually give way to the hybrid prosoposemics in certain dialectal areas is not unnatural. Hence the absence of semics from historical Latin, like their restricted occurrence in Irish and Tocharian, is no proof that they were not once in considerable use in these languages; and this principle will justify us in regarding Umb. *teŕte*, *emantu*, etc. as surviving prosopics rather than prosoposemics whose final *-r* has been lost through phonetic change.²¹

No language presents a perfectly homogeneous prosoposemic middle paradigm in the sense that the ending of every person and number consists of a middle prosopo plus a seme. To some extent forms occur in which the prosopic element is active, or else prosopic forms exist in

²⁰ A term used in other connections by L. H. Gray.

²¹ Cf. SSS, 'Statt *-ār* (in sg. 3, pl. 1, and pl. 3) kann beliebig auch *rā* (mit dem Zeichen des Skt. *r*-Vokals) geschrieben werden.' It is doubtful if anything of historical importance underlies this orthographical variation.

certain parts of the paradigm. Within these limitations, however, a fairly full *r*-PS paradigm can be set up in Hittite (wherein, however, most persons and numbers have to compete with surviving prosopics), Latin, Old Irish, and Tocharian (where rivalry in particular persons and numbers no longer exists), most nearly achieving its ideal maximum in the last named. The standard manuals of comparative IE grammar, of course, set up the *P* medio-passive paradigm as it exists in Sanskrit, Greek, and, somewhat imperfectly, in Gothic, with which the Italic and Celtic prevailing *PS* forms can only be rather incongruously associated. We maintain that the discovery of Hittite and Tocharian forces us to recognize in addition a younger, incipient rival, namely, the *PS* paradigm, which, we believe, we are here presenting for the first time in the now traditional comparative tabular form. In Table 3, therefore, the non-*PS* forms are enclosed in brackets, prosoposemics with active prosopic elements are enclosed in parentheses, and the existence of competing non-*PS* forms in a particular person and number is indicated by a following + sign:

TABLE 3

	Hittite	Latin	conjunct	Old Irish simplex	Tocharian ²¹
sg. 1	(yahari) +	(sequor)	(-airigur, -iur =	airigur, -iur)	(kälpnāmār)
sg. 2	estari +	[sequere]	-airigther	= airigther	kälpnātār
sg. 3	yatari +	sequitur	-airigedar	airigidir	kälpnātār
pl. 1	.....	(sequimur)	(-airigmer)	(airigmir)	kälpnāmtrā
pl. 2	sarkaliya- tumari +	[sequimini]	[-airigid]	[airigthe]	(šercār) < *šercār
pl. 3	yantari +	sequuntur	-airigetar	airigitir	kälpnāntār

10. It is at once apparent from this table that the sg. 3 and pl. 3 are more uniform than the other persons and numbers. In virtue of this uniformity, as also from the fact that the semics were normally of the 'third person', we infer that the forms in *-tor* and *-ntor* are older than the other prosoposemics. The other persons and numbers call for some comment:

Sg. 1. The prosopic element of the Hittite, Latin, and Old Irish forms is identical with the active prosope seen in Gk. *φέρω*, etc. The Tocharian form likewise seems built on the active prosope *-m* < *-mi* (it is, of course, barely possible that a middle prosope akin to that of Gk. *φέρομαι*, Old Pruss. *asmai* is involved). The long vowel of *-mār* is presumably due to the analogy of sg. 2 *-tār*.

Sg. 2. It is noteworthy that in Hittite, Tocharian, and Irish the *r* seme is added to a medial prosope not akin to Gk. *-σo*, but probably to the IE perf. act. sg. 2 *-tha*; the Sanskrit secondary middle *-thās* is possibly to be explained as a contamination in which this old perfect ending was one element. In Latin no prosoposeme ever arose, and the old middle secondary middle prosope *-so* persists with purely phonetic change in *sequere*, beside which the later form *sequeris*, supposed to have arisen on the analogy of act. ipv. *age* : ind. *agis* :: pass. ipv. *agere* : ind. *ageris*, might be described as neo-prosopic.

Pl. 1. Toch. *-mtär*, *-mträ* seems to be formed along wholly traditional lines, cf. the middle prt. (secondary prosopic) *-mät*, doubtless related to Gk. *-με(σ)θα* etc. It is probably accidental that no Hitt. *-wastari* form is recorded. Prosopics in *-wasta* occur, as does the exceptional *t* prosoposeme *eswastati*.²² In Latin and Old Irish the prosopic element is the secondary active *-me/o* of Skt. *ābharāma*, Goth, *kunnum*, etc.

Pl. 2. The Hittite prosoposeme *-tumari* though formed correctly enough, occurs but once (cf. also, however, Luwian *aztuwari* KUB 9.31.2.28), as against a considerable number of prosopics in *-tuma*; and a similar distaste for the awkward collocation **-dhwomr* seems evinced in all the other languages. Irish and Tocharian had recourse to an active prosope, which in Tocharian was extended by the semic *r*, but in Irish was allowed to stand. Latin has supplanted its paradigm at this difficult point by the neo-prosope *-minī*, itself in origin a non-finite verbal termination.

The few recorded Welsh prosoposemics,²³ confined to the early poetry and proverbs, of the type *canhator*, *clywitor*, are all morphologically of the third person singular and, like the semics, are impersonals; there is no evidence that Welsh ever formed prosoposemics in the other persons and numbers. P-Celtic is thus the only known area where the prosoposemes, after having gained a foothold, lost it to their older rivals.

11. In Italic and Celtic the restriction of *r* to non-preterital tenses was more or less broken down, historical Latin and possibly Italic in general showing the *r* prosoposeme in all its simple tenses, Lat. ipf. ind. *operābātur*, ipf. sbj. *operārētur*, Paelig. ipf. sbj. sg. 3 *upsaseter*,

²² Cf. 14 end.

²³ Pedersen, Vgl. Kelt. Gr. 2 §623 Anm. 2; Strachan, Intro. to Early Welsh §129 end (1908), where he is clearly wrong in his assertion 'These forms... are... based on the longer form of the 3 sg. act.' (the italics are ours); Jones, Welsh Gram. §173.11.3.

and Old Irish forming deponent -s- preterites in the same way, as conj. sg. 3 -*suidigestar*.

12. The P-Italic forms in -*ter* and -*nter* (in Umb. used in the primary tenses of the indicative, but in Osc. in all tenses), are commonly derived²⁴ from earlier -*tr*, -*ntr* (with secondary syllabic *r*) from -*tro*, *ntro*, 'contaminations' of the secondary middle prosopes with the *r* seme; and the phonetic process involved is compared to that by which earlier **agros* became Latin and Umbrian *ager*.²⁵ But those who accept this derivation find it difficult to explain the -*tur*, -*ntur* which coexist in Umbrian, and are, of course, compelled to regard the apportionment of the two series, to the primary and the secondary functions respectively, as 'unoriginal'. With respect to Umbrian, there is no difficulty in deriving the prosopic element -(*n*)*te* from the primary IE -(*n*)*tai*, cf. Umb. dat. sg. (*ā*-stem) *tute*, *tote* < **teutāi*; *kvestur* beside Lat. *quaestor*, from which it appears that both IE *āi* and *ai* were monophthongized to *e* (probably open *ē*) in this dialect. Osc. -*ter* is admittedly troublesome, although a monophthongization of unaccented short diphthongal **ai* in polysyllables is not entirely beyond the range of possibility; it may perhaps, better be regarded as an orthography for -*tr* (with secondary syllabic *r*) arising from a contamination of unaccented *-*tai-r* and *-*to-r* and hence, naturally appearing in both series of tenses. It then remains to add that in Umbrian the two series of prosoposemes continue to be distributed as were the antecedent prosopes, whereas in Oscan (and probably the Sabellian dialects as well²⁶) the -*ter* series tended to be levelled out through the whole paradigm. An interesting departure from this principle is made in Osc. sbj. prs. sg. 3 *krustatar*, *kaispatar*; it is fairly clear that here the characteristic subjunctive stem-final vocalism has been extended to the ending also, somewhat as in Vedic subjunctives of the type (sg. 3) *yājātāi* (AV) beside *yājātē*.

13. A word must be said of the Irish pass. simplex 'sg. 3' -*thir*, pl. 3 -*tir*, conj. sg. 3 -*thar*, pl. 3 -*tar*. It is apparent from Irish sound laws²⁷ (1) that a vowel always existed between the *t* and the *r*, (2) that this

²⁴ Buck, Gr. Osc. Umb. §239.

²⁵ It is doubtless the necessity of postulating such forms in the prehistory of Irish dep. (cf. 5) that has encouraged scholars to set them up for P-Italic as well, but there is here no phonetic law compelling us to assume a one-time juxtaposition of *t* and *r* as in Irish (cf. note 13 above).

²⁶ Cf. Paelig. ipf. sbj. sg. 3 *upsaseter*.

²⁷ Thurneysen, Hdb. alt-Ir. 575. It is the occurrence of syncope in the preceding syllable that makes this certain—the converse of the situation occurring in the deponent, see 5 and note 13.

vowel was frontal ('slender'), and (3) that the *r* of the simplex endings was followed by a frontal ('slender') vowel, whereas that of the conjunct was either absolutely final, or followed by a back ('broad') vowel. The second of these conditions has led some scholars to infer that we are here dealing with an *r*-extension of the primary active prosopes *-ti*, *-nti*, a supposition that accords ill with the passive concept. We suggest that this palatal vocalism continued older *-ai*, and that here, exactly as in Umbrian *-ter* forms (although, of course, with a very different functional distribution), we have to do with prosoposemes built upon the middle primary prosopes *-tai*, *-ntai*. The semantic relation of these to the *-trai*, *-tro* series underlying the deponent is not too clear, but we may suppose that in Proto-Irish times the same *r*, when felt with maximum functional force, resisted the reformation involved in the development of deponential *-tro* (and *-trai*) from *-to-r*, in which the functional value of *r* was less significant. The vocalism following the *r* must again be analogical, agreeing with that observed in the re-formed deponential endings. The special pl. 3 of the passive dies out in Middle Irish.²³ That in Old Irish the passive *r* prosoposemics were gaining at the expense of the *r* semics is demonstrated by the gradual decay of the latter type in middle and later Irish.

14. *T* Prosoposemics. This type occurs only in Hittite, where it constitutes the normal middle preterite. It is found also, however, in the ipv. sg. 2 and pl. 2 as against *r* prosoposemes in the other persons and numbers of the ipv., and in some allegedly present indicative forms. Since the *r* seme appears more appropriate for imperatival use, we are inclined to connect its non-occurrence in our texts in the second persons with the general disinclination, earlier observed (10), to form an *r* prosoposeme to the middle prosope **dhwom*, and it would appear that the sg. 2 has followed the analogy of the pl. 2. However, such an extension of the sphere of the *t* seme could be possible only if it was losing its exclusively preterital connotation and coming to be felt as an 'undifferentiated middle' sign. Whether the *t* prosoposemic 'presents', e.g. sg. 2 *kestati*, pl. 1. *arwastat*, *eswastati* likewise represent an extension of the use of this seme from its earlier province, or whether, on examination in context, these 'presents' might prove to be of such strongly perfective aspect as to invite confusion with the preterital morpheme, we leave open for the present.

15. [*Semato-Prosopics*. These occur only in Indo-Iranian. As we have seen, it is only in vestigial form that semics survive in this area.

²³ Dottin, Manuel d'Irlandais Moyen §240 rem. 1 (1913).

However, some few of them were so firmly rooted in usage as to persist with more or less analogical re-formation or extension. Such re-formation is seen in the forms pl. 3 *duhré*, *aduhra*; extension by means of an added medial prosope, as in pl. 3 *duhrátē*, ipv. pl. 3 *duhrátām*, or even an active prosope, as in ipf. pl. 3 *áduhuran*, is quite obviously a late attempt to force the now isolated and perhaps more or less discredited semics into the normal prosopic pattern.²⁹

CONCLUSIONS

16. Our survey of the evidence leads up to the following conclusions, in some of which we have been more or less anticipated by Odé and Meillet:³⁰

1. The survival of the semics in Indo-Iranian, even in minimized and mutilated form, indicates that this type of inflection, no less than the prosopic, was once well established in IE; but it must have died out early in that north central area in which the incipient Germanic, Hellenic, and Balto-Slavic dialects continued to be localized after the departure of Indo-Iranian. In the more southerly belt, then stretching perhaps from the steppes of South Russia to the western Alps,³¹ the semics held their own.

2. Somewhere in the east of this southern belt the hybrid prosoposemic inflection originated and spread, in the main, westward, at a time when the language was in a state of loose though not hopelessly far advanced dialectal differentiation, affecting successively the dialects underlying Hittite, Thraco-Phrygian, almost certainly Illyrian,³² Q-Italic, later P-Italic and Q-Celtic, and last P-Celtic. Meanwhile, Tocharian, perhaps in origin a near neighbor of Hittite,³³ had carried

²⁹ The forms ipv. sg. 3 *duhām*, pl. 3 *duhrām* cannot be classified exactly under our terminology; it is clear, however, that the former has been created to the endingless ind. sg. 3 *duhē* on the analogy of prosopic ipv. *dugdhām* beside ind. *dugdhē*, and that similarly *duhrām* has been created to the semic pl. 3 *duhré* on the analogy of prosopic ipv. *duhatām* beside ind. *duhātē*.

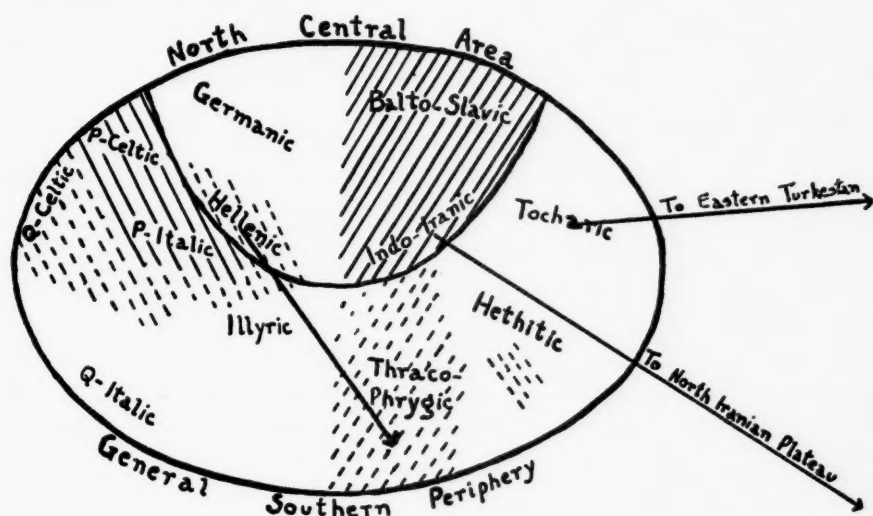
³⁰ Odé, *De Uitgangen met R*, 84-5; Meillet, *BSL*, 32.15-6.

³¹ G. Kraft, *The Origin of the Kelts*, *Antiquity* 3.33-44 (1929), claims the western Alpine region as the cradle of the Celts.

³² Since prosopics in *-to* are reported for Venetic, and since we are disposed to accept E. F. Claffin's identification, *LANG.* 12.23-34 (1936), of *tolar* as a verb (in our terminology a semic), we here venture the prediction that if and when more extensive documents are discovered, prosoposemics will also be found in Venetic.

³³ W. Petersen, *LANG.* 9.12-34 (1933), and cf. the somewhat similar view expressed by Meillet, note 30.

this type to an isolated eastern area. Note especially the survival of the dual verbal inflections in the languages originally localized in the north central area, as against their virtual disappearance in those properly belonging to the southern peripheral area constituting pro-
 proposemic territory.



Areas showing the characteristic phonetic developments of the 'satem' languages.



Areas in which these developments are doubtful or limited in their application.



Areas in which the labiovelars tend to become labials.



Areas in which the same tendency is of doubtful or limited application.

The arrows show later movements whereby earlier contacts were disrupted.

3. In the southeast, where the pro-
 proposemics originated, the same could not be suffixed to a primary middle ending, either because the primaries were dying out, as witness Hittite and Tocharian, or for some other more obscure reason. Phrygian forms, so far as known, and, indeed, those of Latin conform to this law; but in P-Italic and Q-Celtic (!) we claim to find primary as well as secondary prosopic elements involved in the pro-
 proposemics, showing that the old tabu, whatever it may have been, had broken down by the time the PS type had reached

the areas last named. The discontinuity here between Latin and P-Italic is very striking, as is, indeed, the further fact that the Umbrian forms seem notably more archaic than even those of Oscan.

4. The absolute structural uniformity of prosoposemics in third persons leads inevitably to the conclusion that herein lodged the spearhead of the invasion westward. It is probable that the ultimate connotation of the 'third-person' prosoposeme, even as that of its semic antecedent, was impersonal, a character exhibited in the last stage of its penetration (P-Celtic); in areas where it had earlier penetrated it had had time to develop other meanings.

5. It is not to be supposed that in the invaded areas the older types yielded to the prosoposemics without a struggle. From the documented³⁴ competition between prosopes, semes, and prosoposemes in Hittite, it is fairly to be inferred that a similar period of paradigmatic turbulence existed in the prehistory of Latin, Irish, and Tocharian; and, indeed, the well-nigh complete victory of the prosoposeme which the last three exhibit is statistically foreshadowed within Hittite, where unfortunately, our documents cease before the final issue is resolved.

³⁴ Cf. note 5.

INDO-EUROPEAN INITIAL *sl*

JOHN PHELPS

This article¹ treats of Indo-European initial *sl* in relation to initial *stl* found in some of the derived languages. Since we discuss only the initial position that position will be understood whenever *sl* or *stl* is mentioned.

The theory is that *sl* is the original sound, retained by some languages, but which in some other languages became *stl* by a post-Indo-European intercalation of *t*.

1. A survey of the vocabularies of the various Indo-European languages, ancient and modern, discloses a remarkable, and, it seems, hitherto unnoticed fact:

The northern belt of languages—Gadhelic, Gaulish, Teutonic, Baltic, Slavic (except Bohemian), Armenian, and Indo-Iranian—have, and always have had, words in *sl* in some form, but none in *stl*. The southern belt—Greek, Latin, Romance,² and Brythonic—have not, and historically never have had, any word in *sl*, but many in *stl* and its derivatives. Moreover, *sl* is found in the reconstructed Indo-European and *stl* is not.³

As a tentative explanation of this geographical cleavage we may assume that the original Indo-European speakers in their northern home spoke *sl*; and that those offshoots who migrated southerly to the shores of the Mediterranean Sea lost the facility for pronouncing initial *sl* as the result of contact with some autochthonous people to whom *sl* was unknown, and who pronounced it as *stl*.⁴

This result of contact with the sea-folk⁵ is borne out by the fact that

¹ Substantially as presented in a paper read before the annual meeting of the LINGUISTIC SOCIETY OF AMERICA at New York, December 27th, 1935.

² In words like Ital. *slargare* the *sl* is not strictly initial.

³ See Walde-Pokorny, 2.706-16; 603-51. I have not noticed anything relevant to this topic in the available data of Hittite and Tokharian.

⁴ As Sanskrit acquired the cacuminal dentals from the Dravidian aborigines. See Meillet, *Introd.* § 11.

⁵ Who these Mediterranean people were and what language they spoke is unknown, and no supposition is advanced. However, we are, I think, justified in calling the *stl* combination 'Mediterranean'.

Oscan (and inferentially Umbrian), which never reached the sea until historic times, retained *sl*, while the other Italic dialects on the coasts spoke only *stl*.⁶ Bohemian has the original *sl* together with *stl*, including doublets in *sl/stl*, indicating an originally *sl* speech with local survivals of an importation of the *stl* influence through Venetic contacts. A few words in Polish and East Slavic are explainable as loans from Bohemian. As to Brythonic we may assume that it was prehistorically in contact with the Mediterranean.⁷ A few *skl* (never *stl*) words in English dialect are of Brythonic survival. Some English *sl* influence may be traced in Welsh and Cornish.

2. Whatever may have been the real prehistoric geographical and cultural relations of these speakers, it is the phonetic relation between the two groups of sounds, *sl* and *stl*, that indicates that the *t* is intercalary. The articulation of *sl* is effected wholly by tongue-movements. The tongue, in changing from the *s* to the *l* position, performs the difficult feat of instantaneously and completely reversing its shape. In the *s* position the tip is down, the sides are expanded, the surface is concave and the mass of the organ is raised. In the *l* position the tip is up, the sides contracted, the surface convex and the mass lowered. The auditory effect of this is that the tip closes the orifice for the *s* sound at the precise instant that the sides open the orifices for the *l* sound. When these complicated movements are all performed with synchronous agility, accompanied with the requisite breath, the sound *sl* is heard. But if there is a lack of synchrony or coordination in any of the movements some other sound must necessarily intervene. Now, the tip is the quickest and most agile part of the tongue, and a lack of synchrony first results in the upward click of the tip, bringing the tongue into the

⁶ Oscan *slagim* (Acc.) 'regionem, finis', *slaagid* (Abl.), beside Lat. *stlocus*, *stloppus*, *stlat(t)a*, *stlis*, *stlembus*; Oscan proper name *Slabiis*, beside Lat. *Stlabius*, *Labiis*. Buck, Osc.-Umb. Gram., s.vv.—Celts-Ligurian inscr. No. 269 *slaniai* (Prae-Ital. Dial. 2.86), Dat. 'to Slania?', beside *Stlania* (Venetia). So, generally in the coastal dialects: *Stlaccia* (Lucania, Calabria, Campania, Latium, Venetia); *Stloga* (Latium); *Stlabia*, *Stlaboria* (Campania); *Stlatta* (Volsci); *Slar**** (Daunia); *Sla***** (Picenum); and the Illyrian town *Stlupi* (Ptolemy), with ethnicon *Stulpini*, on the coast of Liburnia. For the Italic names see Conway, *Italic Dialects* (1897), and Conway, Whatmough, and Johnson, *Prae-Italic Dialects* (1933), passim.—Umbrian *Tlatie* 'Latii' (Buck, op. cit.) does not, I think, represent a local *stl*, and thus separate Umbrian from Oscan; but is from an older name **Stlatium* of the Latins themselves, i.e. **Stlatium* 'the flat country'. Cf. *Campania*; *stlat(t)a*.

⁷ And, it seems to me, in contact with early Latin. The most archaic *stl* forms are in Breton.

t position, before the contraction of the sides has opened the orifices for the *l* sound. In this uncoordinated movement *t* is midway between *s* and *l*, and the intercalation of *t* is a necessary consequence. Hence the resulting combination of sounds is *stl*. In other words, *stl* is a natural result of the effort to pronounce *sl* by a tongue undisciplined to the mechanics of the movement.

For example, the simple sound-imitation *slop*, *slap*, which could be formed at any linguistic epoch for the sound made by striking flat surfaces, hence for flat things and derived senses, is found in Latin pronounced *stloppus*, 'the sound made by slapping the distended cheek'; and in Breton *stlapad* 'coup de main, tape', *stlapa*, v. 'flanquer'.

This *stl*, once fixed in a language as a permanent combination of sounds, becomes itself, in turn, subject to sundry changes or developments:

3. The *t* sometimes shifts to a palatal stop, whence Vulg. Lat. **scloppus* (Ital. *schioppo* 'a gun') and Breton *sklapan* 'flanquer'. So, the doublets: Lat. *stlis/sclis* 'strife', Breton *stlabez/sklabez* 'ordure', *stlej* 'qui traine'/*sklejal* 'trainer', *stleug* 'étrier'/*skleug* 'marchepied d'une voiture', Boh. *stloustnouti/skloustnouti* 'fett werden'. Lat. *stl* became everywhere *scl* in later Latin and Romance; but it never reverts to *sl*.⁸

4. A further shift of the stop results in *spl*, which is purely analogous since the lips have no part in the phonetic change of *s* to *l*. So, Ir. *slaodim* 'I drag', OBret. *stloit* 'trainer', OFr. *esclaon* 'traineau', beside *splaon*, id.; Boh. *stlesknouti* 'zusammenschlagen', *tleskatý* = *splesklý* = *pleskatý* 'flachgedrückt'.—Gr. στειλόμεναι·σπελλόμεναι, Hesych.; σταλείσα·σπολείσα, Id. (See below, 7, for vowel insert).

5. In all these forms, viz: *stl*, *skl* (*scl*), *spl*, the *s* is sometimes dropped, perhaps by a delayed breath impulse, resulting in *tl*, *kl* (*cl*) *pl*. It would seem that *tl* is always derived from *stl*; but it cannot be said that *kl* (*cl*) *pl* are always derived from *skl* (*scl*) *spl* respectively. However, before assigning to Indo-European any word in *tl*, *kl* (*cl*) or *pl*, its possible origin from *stl* should be examined.—Ex.: Boh. *šlapěje* 'der Schritt',

⁸ Prov., Sp., Pg. *scl* beside *escl*; OFr. *escl* (Fr. *écl*); Ital. and Rum. *schj*. The statement of Brugmann (Grundr.² 1.585) that Lat. *stl*, 'nach gewissen lauten', became *sl* > *l*, does not apply to initial *stl*.—Although we are not concerned with the general history of *-sl-* in interior position, it may be observed that the tendency of the dialects of the south Italian coasts to intercalate *t* into *sl* was so strong, that when Lat. *insula* became **isla* it was pronounced **istla*, and became the name of the island *Iscla*, now *Ischia*, off the Bay of Naples. Grandgent, Vulg. Lat. §284. In Calabria, Sicily, and Sardinia the common noun appears as *iska*, and in Provence as *iscla*. Meyer-Lübke, *REW*² 4475.

tlapna 'der Tritt', *tlap*, *tlapa* 'die Pfote, Tappe, der Fuss', *tlapot* 'das Getappe'—E *slush*, Boh. *stloustnouti* 'fett werden', *tloušt* 'die Dicke', Pol. *tluszcz* 'fat, grease', *tlusty* (adj.) 'fat'.—Bret. *stlapa*, dial. *sklapan*, 'flanquer', Pol. *kłopot* 'clatter of footsteps' (cf. *tlapot*), Fr. *clapoter* 'to clack the tongue', OFr. *clap* 'boiteux' (Fr. *éclopé*), *clapeter*, *clapier*, 'boiter', Vulg. Lat. *cloppus* 'lame'.—Boh. *splesklý* = *pleskatý*, supra.

6. Words in *tl*, (*kl*, *pl*), apparently are liable to lose the initial stop, leaving initial *l*. I say apparently because I have only doubtful instances of the sequence *stl* > *tl* > *l*. It is inferable from doublets like Lat. *stlis/sclis/lis*, *stlocus/locus*; from *stlat(t)a* 'a broad ship', *tlatum*, p.p. of *fero*, = *latum*, *latus* 'broad', *latus* 'side'; and from **Stlatium*, *Tlatie*, *Latium*. The loss of initial *s* before a consonant is common Indo-European; but every reason forbids that *lis*, *locus* should be Indo-European, while *stlis*, *stlocus* are post-IE loans. The alternative probability is that a dropping of *s* from *sl* was coeval with the intercalation of *t*, and was just another device to avoid pronunciation of *sl*. I leave the question open and for determination in each individual case.

7. By a different result of lack of coordination, perhaps as an effort to aid articulation, there is produced a hiatus between the *t* (*k*, *p*) and *l*. This is a breath sound which is a rudimentary vowel, becoming in time a full vowel. This intercalary vowel, not being historical or etymological but a mere phonetic incident in post-Indo-European speech, may take on any vowel timbre according to circumstances. Sometimes it comes in by a metathesis or transposition of an original vowel in the word. The anaptyctic vowel may be represented by a sign like *ə*, but is not to be confused with IE schwa. Moreover, the intercalary vowel sometimes takes on the stress accent, which tends to disguise the form and remove it from its cognates in *sl*.—Ex.: Gr. *στλεγγίς* = *στέγγίς* 'a body-scraper'.—Boh. *tlapa* 'paw', Rum. *talpe* id., *talpetá* 'to stamp the feet', Lat. *talpa* 'mole' (from his large, flat front paws), Gr. *σκάλοψ* and *σπάλαξ* id., Ital. *scalpitare* 'to clatter with the hoofs (horses)'; Gr. *κολάπτειν* 'to stamp with the hoof (horses)'.—Bret. (dial. Van) *stlasein* 'flanquer', Gr. *κόλαφος* 'a box on the ear'.—Bret. *stlak* 'claquement', *stlok* = *stolok* 'bruit sourd'.—Bret. *stlafad* 'soufflet', *stalaf* 'battant de porte', *stalf* 'lindeau'.—Pol. *tlusty* 'fat', Russ. *tolstóiy* id.—Boh. *slup/stlup* 'pillar, column', Illyr. *Stlupi*, *Stulpini* (supra).—Gr. *σκολιός* = *σκολιός* 'crooked'.—Fr. *claque* 'a group of hired applauders', Gr. *κόλαξ* 'a flatterer, fawner'.

8. Finally, the *l* of *stl*, *skl* (*scl*), *spl* sometimes changes to *r*. It is not suggested that all cases of *str skr* (*scr*) *spr* have this origin; but there are

enough doublets extant to establish the phonetic rule when applicable.—Ex.: Gr. *στλεγγίς* = *στρεγγίς*, supra.—Bret. *stlak* = *strak* 'claquement'; *stlapad* 'coup de main', *strapad* 'accès (de mauvais temps, de maladie), strap 'bruit'.—E *slip*, *slippery*, Bret. (dial. Léon) *stlipou* pl. 'tripes', (dial. Van) *stripou*, id., Fr. *tripes*, id.

9. Reducing the foregoing conclusions to a formula we have:

COORDINATED

IE *sl* > 'Mediterranean'

UNCOORDINATED

$$\left\{ \begin{array}{l} stl > stəl, tl, təl \\ skl > skəl, kl, kəl \\ spl > spəl, pl, pəl \end{array} \right.$$

Add to this occasional variants in *str* etc., (which, however, cannot be said to form a similar complete paradigm) and we have the basis for analysing a large class of European loan-words whose true places in the history of language cannot otherwise be properly determined.

10. It is apparent that in collating such words from various languages, ancient and modern, we are not dealing with them on the principles on which words descended from a common Indo-European origin are collated. Indeed, if our main thesis be correct, namely, that the combination *stl* is a phonetic phenomenon of post-Indo-European speech, it is manifest that such groups of words must represent a later, but still chiefly prehistoric, epoch of interloans among the already formed and divergent languages. It also follows that such words cannot be assigned to any Indo-European origin without first eliminating the intercalated stop (and the intercalated vowel, if any) and carrying them back to the Indo-European original through their related forms in the northern or *sl* group of languages.—Ex.: Gr. *σκάλοψ* must be analyzed as *σ(κα)λοπ-*, and not as *σκαλ-οπ-*; Lat. *talpa* as *s(t)lap-*, not as *talp-*, and Gr. *σπάλαξ* as *σ(πα)λακ-* = *σ(κα)λαπ-*, not as *σπαλ-ακ-*—all under the common European loan-form *slap* or *slop*.

11. The modern science of comparative Indo-European linguistics has been intent on building up the primitive elements of the parent speech. This monumental labor has now about attained its object, and the question even arises whether the system has not become over-comprehensive. All words not obviously loans are, a priori, assigned, or sought to be assigned, to some primitive etymon of the parent speech. But there was a vast stretch of time—how many centuries or millennia we will never know—between that parent speech and our recorded languages. Throughout those long unrecorded ages of prehistory what interrelations existed between the peoples who spoke the proto-

types of our recorded languages we do not know. But we must recognize that whenever, even to the remotest times, there was contact between two or more speech-groups, there was inevitably an interchange, more or less extensive, of vocabulary.⁹

Meillet has forcibly reminded us¹⁰ that the body of words classed as Indo-European really consists of two distinct categories: (1) words properly Indo-European; and (2) words which are loans between the separate dialects or languages descended from Indo-European. These two categories are confused because of the lack of some criterion which can distinguish the original from the loan words.

The present theory furnishes, as to the type of words to which it applies, such a criterion. According to our main premise words bearing the hall-mark of the intercalated stop in *sl* must belong, not to the primitive Indo-European era, but to some period of that long and ever silent interval following the breaking up of the parent language. If this should necessitate the reconsideration of some etymologies¹¹ heretofore deemed adequate, it need not, in any event, disturb the fundamental principles of the science. It offers a point of orientation from which the beginnings may be made of an exploration into an uncharted void in the history of language. That exploration will become more extensive and produce greater results in proportion as other criteria may be found identifying other types of the prehistoric loan-vocabulary.

⁹ Although this loan-epoch seems to have been primarily European the eastern languages may also be represented. We may venture to call it the Prehistoric European Loan-period, waiving, for the moment, any participation of the eastern group that may be shown.

¹⁰ 'Toutefois, il importe de ne jamais l'oublier, le terme de mots indo-européens recouvre deux choses hétérogènes et qui ne restent confondues que par suite de l'absence d'un critère donnant le moyen de les distinguer; et la part des emprunts préhistoriques d'un dialecte indo-européen à un autre ou de plusieurs dialectes indo-européens à des langues d'autres familles est certainement immense'. Meillet, *Introd.* 339, cf. 343.

¹¹ I do not discuss details of etymologies since those heretofore advanced are usually treated on an Indo-European basis, and must necessarily clash with those on the interloan theory. I have sought to use for the exposé of the principles announced illustrative forms whose semantic relations are simple and obvious. There are, however, other groups which similarly demonstrate the general principles, and which I hope to discuss hereafter.

THE VALUES OF THE *be*-SIGN IN HITTITE

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The phonetic interpretation of the cuneiform sign 𐎧𐎶 in Hittite texts is a matter about which scholars have not yet reached an agreement. The Akkadian values that have been assumed at one time or another for Hittite words are *be*, *pè*, *bat*, *pât*, *pît*, and *mit*. The distinction between *be* and *pè* and between *bat* and *pât* is without meaning for Hittite orthography, since the *b* and *p* signs are in general employed indiscriminately, and it is now agreed that there is no good evidence for the value *mit*. There is, however, still difference of opinion as to the remaining three values, *be*, *bat*,¹ and *pît*.

Götze, *Madd.* 55-7 (1928),² sketches the earlier history of the problem, and gathers much of the evidence from the documents. This is supplemented and subjected to careful scrutiny by Güterbock, *ZA NF* 8.225-32 (1934). Holger Pedersen, *AOr.* 7.80-8 (1935), discusses the problem on the basis of Götze's material; apparently he had not seen Güterbock's paper at the time he wrote.

I have shown³ that in Hittite the original voiceless stops tend to be written double, while the original voiced stops, including the voiced aspirates, are never written double. Since the cuneiform sign under consideration is frequently followed by a sign with initial *t* or *d*, this principle should help us to determine the phonetic interpretation in words whose etymology is known. I attempted to apply such a test in writing my *Hittite Grammar*, but the brevity of the treatment there has apparently prevented some readers from appreciating the force of the argument.⁴ The purpose of this paper is to summarize the results

¹ It is customary to write *pât*, but it is surely better to avoid the accent. If anyone should prefer to write *bît* instead of *pît*, there would seem to be no reason to urge against him.

² Abbreviations are employed in this article as in my *Hittite Grammar and Hittite Glossary*, Edition 2.

³ *JAOS* 52.1-12, *HG* 74-84.

⁴ Thus Holger Pedersen, *AOr.* 7.87, announces the collapse of my notion that 𐎧𐎶 is sometimes to be read *be*.

of the discussion hitherto while combining them with some further inferences that may be drawn from etymological considerations. I discuss the several stems separately, but group related nouns and verbs together. The lemmata are given in the forms used in the second edition of my Hittite Glossary.

1. *pědd-* 'carry, bring, take away' is usually written *pi-e-da-*, or *pi-da-*, but Güterbock finds six certain instances of *be⁵-da-*; namely *be-da-an-zi* (HT 1.3.23; ≠ KUB 20.1.3.12), *be-da-a-an-zi* (KUB 9.32.1.16; Bo. 6002.2.10), *be-da-a-ir* (KUB 17.21.2.13, 17). We cannot read *bad-* or *píd* since neither would harmonize with the usual orthographies of the word. Furthermore, *peda-* is certainly a compound of *da-* 'take', which must be identified with IE *dō-* 'give, take'. The requirements of etymology thus confirm the conclusion that Güterbock draws from the documentary evidence. In this word at least our sign has the value *be*.

2. *bedd-* 'dig' is always written with the sign 𐎶 , and consequently Güterbock refrains from drawing any definite inference as to the value of the sign. He notes, however, that the inflection of this verb and of No. 1 is identical, and that, if we read *be-*, they are completely homonymous. Is it not possible that the almost consistent difference in spelling is a scribe's device for distinguishing two actual homonyms? We must appeal to etymology for an answer.

Pedersen (87) notes that if we read *pít* the assumption of Hittite *ti* = IE *t* would compel us to adopt a rather unsatisfactory connection of the verb with Gk. *περάννῃ*, Lat. *pateo*, etc. Surely everyone will prefer to connect it with IE *bheid-* 'split, cleave'. The Latin idiom *findere terram, terras, agros* comes very close to the Hittite meaning. For the second vowel of the Hittite word, cf. Homeric *πεφιδήσομαι*.⁶ But since IE *d* requires a single consonant in Hittite, we must read *be-da-*.

3. *pidda(e)-* 'pay, deliver': Güterbock finds only the writing 𐎶 certain, and so he leaves the value of the sign in doubt. The conjugation of the word, however, implies denominative origin, and Güterbock lists (230, No. 6) a neuter pl. *pi-it-ta*, which may very well be the source of the verb. In two passages (KUB 13.2.3.41; 4.1.1.13) and perhaps in a third (*[pi]-id-da*—KUB 26.43.1.6)⁷ the meaning 'payments' is satisfactory.

⁵ He writes *pè*.

⁶ I formerly (JAOS 50.126) connected this IE root with Hitt. *pi-ḫi-ša-an-zi*; but there is no such word. Read *túḫ-ša-an-zi*.

⁷ Güterbock mentions a fourth passage (Bo. 546.2.9), which he does not understand. The few words he cites are certainly not clear.

Güterbock also lists separately (231, No. 7) four verb forms with initial *pi-it-* (*pi-it-ta-at-te-ni*—KUB 23.53.6, [*pi*]-*it-ta-at-te-en*—ib. 7, *pi-it-ta-iz-zi*—2 BoTU 12 A = KBo. 3.34.1.12, 2.35). Pedersen (86 f.) points out that the meaning 'pay' would apparently fit in the first two passages. The other two are extremely difficult, but we can secure a certain insight into the final one by comparing it with an approximately parallel passage. The text is as follows.

2 BoTU 12 A = KBo. 3.34.2.33 ff.: *ma-a-an LUGAL-wa-aš pi-ra-an ši-eš-kán-zi ku-iš ha-az-zi-iz-zi nu-uš-še GEŠTIN-an a-ku-wa-an-na pi-an-zi* (34) *E-az [x] LUGAL ku-iš na-at-ta-ma ha-az-zi-iz-zi nu-uš-še i-ya-ra (?) GAL-ri pi-an-zi* (35) [*ku-wa*]-*at-ta-an ni-ku-ma-an-za ú-wa-a-tar pi-it-ta-iz-zi*. With this should be compared:

KUB 13.4.3.29 ff.⁸: ^{LÚ}*ha-li-ya-at-tal-la-aš <DINGIR-LIM>-ši pa-id-du-be* (30) *a-pa-a-aš-ma A-NA DINGIR-LIM-ŠU ša-ra-a še-e-šu-u-an-zi li-e kar-aš-ta-ri* (31) *ták-ku-wa-aš kar-aš-ta-ri-ma na-an-kán ma-a-an UL ku-na-an-zi* (32) [*l*]*u-ri-ya-aḫ-ha-[a]n-du-ma-an nu ne-ku-ma-an-za TÚG-aš-ši-kán NÍ.TE-ši* (33) *an-[d]a li-e-be e-eš-zi nu wa-a-tar 3-ŠU La-ba-ar-na-aš lu-li-ya-za* (34) *I-NA É DINGIR-LIM-ŠU pi-e-da-a-ú nu-uš-ši a-pa-a-aš lu-ú-ri-eš e-eš-du*, 'Let the keeper by all means go to (the temple of) his god; (30) and let him not neglect to sleep in (the temple of) his (own) god. (31) But if he does neglect (this), if they do not kill him, (32) let them at least humiliate him; (while) naked—let there not be a garment on his body—(33) let him bring water three times from the cistern of *Labarnas* (34) to his temple. Let that be (his) humiliation.'

The two passages are only roughly parallel: the first has to do with an obligation of certain persons to sleep in the king's palace, and the second with the duty of the ^{LÚ}*haliyattallas* to sleep in his proper temple. The penalty for neglect of duty, however, that is prescribed in the first passage seems to be identical with the second alternative penalty prescribed in the second. I am not at all sure of the precise meaning of the early text, but I would suggest that *hazzizzi* (33) may be roughly equivalent to *le karstari* (30) and *natta hazzizzi* (34)⁹ to *karstari* (31). *E-az* (34) seems to be parallel with *luliyaz* (33) 'cistern', and such a value is not surprising for this character,¹⁰ and, if so, the lacuna plus LUGAL (34) must be equivalent to *Labarnas* (33). Now the surviving

⁸ Instructions for Temple Officials = Sturtevant, JAOS 54.382 = Sturtevant and Bechtel, Chrest. 158.

⁹ Surely this is not the verb *hat-* 'wither, dry up'!

¹⁰ See Deimel, No. 308.1, 2, 3, 6.

traces of the lost character forbid us to read É but permit BĀR 'shrine'. I must therefore withdraw my former translation of *Labarnas* as 'king', and assume that there was a shrine of *Labarnas* on the citadel, connected with which there was a cistern.¹¹

Possibly, then, the earlier passage means something like this: 'When they are sleeping (i.e. at the time when it is customary to sleep)¹² in the presence of the king, whoever performs his duty (?), to him they give wine to drink. (34) From the cistern (?) of the king's [shri]ne—whoever does not perform his duty (?), to him they give perforated (??)¹³ jugs, (34) in [whi]ch naked he delivers water.'

The parallelism of *pi-it-ta-iz-zi* (KBo. 3.34.2. 34) with *pi-e-da-a-ú* (KUB 13.4.3. 34) suggests, of course, that both are forms of our No. 1, *peda-* 'carry, bring, take away'; but this verb never presents *tt* or *dd*, and besides it is always conjugated according to the second class of the *hi*-conjugation.¹⁴ Consequently we must ascribe *pi-it-ta-iz-zi* to No. 3 in the sense of 'deliver'. Here, then, is clear proof that in this word we must read *pít*.

Pedersen (86f) notes the semantic parallelism of *pidda(e)-* with Lat. *praestāre* 'give, furnish', and suggests an etymological connection. We can scarcely connect the two preverbs, but it is reasonably certain that the second part of our word is to be connected with the root (s)*tā-* 'stand, cause to stand'; cf. Hitt. *tiya/e-* 'take one's stand', *titta-*, *tittanu-*, *tittanuske/a-*, *tittiya/e-* 'cause to stand, place'.

4. *piddai-*, *pitteya/e-*, *piddā(e)-*, *pittaeske/a-* 'fly, flee, hasten', *pittenu-* 'cause to fly, cause to flee, *pittiyalis* 'runner'??, *pittar* 'wing'. These words are almost always written with 𐎶𐎵, and the one instance of *pí-te-an* that Güterbock records does not help; for an occasional single writing of *t* = IE *t* is to be expected.

¹¹ Goetze feels that we should avoid assuming an ideogram E, which is very rare in Akkadian and unparalleled in Hittite. He suggests *e-az*, *e* being the archaic plural pronoun. The objections to this are: (1) that the antecedent of the plural pronoun would be singular, and (2) that *-az* for (reflexive) *-za* is strange after a vowel. On the other hand, we might thus avoid the awkward anacoluthon of the translation suggested in the text. *e-az* [—] LUGAL would mean 'they are [—] (of the) king'.

¹² If this interpretation is correct, we have here a remnant of the original durative force of the stem *seske/a-*. Götze, KIF 1.233, and Bechtel, Hittite Verbs in *-sk-* 15, hold that the stem does not contain the *-ske/a-* suffix and that it never had durative force.

¹³ The adjective *i-yā-ra* must designate some kind of a vessel that is unsuited to the purpose of carrying water; the precise meaning suggested above is a mere conjecture.

¹⁴ HG 286 f.

In this case, however, the argument from etymology is quite conclusive. No one can doubt that we have before us the familiar root **pet-* 'fall, fly', and so we must interpret the initial sign as *pīt-* (to be read *pet-*, of course, although it scarcely seems advisable to write *pēt* in a syllabic transcription). The only other possibility would be to assume *o*-grade or reduced grade in certain forms, and thus to justify the reading *bat*. This, however, seems to me unjustifiable in the lack of positive evidence.¹⁵

Probably the Hittite verb originally went according to the third class of the *hi*-conjugation, as it frequently does in our texts; the stem *pitteya/e-* is of course quite normal beside a diphthongal base. The commonest stem of all, *pidda(e)-*, may represent a transfer to the *mi*-conjugation. We are thus led to assume an original stem **petēi-*, which has, in fact, been assumed by Persson¹⁶ and Boisacq¹⁶ to account for Gk. *πταίω* 'fall, stumble', *ἰθυρίων*, 'flying straight', and Lat. *vespertilio* 'bat'. Cf. also Lat. *petīvī*, *petītus*.

5. *pittala-*. The meaning 'abandon, neglect', which was suggested to me by Goetze, seems to fit the passages fairly well, but is possibly not quite certain. I have no etymology to suggest. Götze, Madd. 55, and Güterbock cite the spelling *pī-it-ta-la-an-zi* (KUB 9.32.1.27) beside *pīt-ta-la-an-zi* of the duplicate text (KUB 9.31.3.46), and that determines the value of the ambiguous sign.

6. ^{G1}*pīt-tar*, dat. *pīd-da-ni-i*, *pīt-ta-a-ni*. The determinative shows that the object designated is made of reeds, and in the ritual texts various kinds of solids are placed or sprinkled upon it. Friedrich¹⁷ suggests the meaning 'eine Art Teller oder Tablett aus Rohr'. In HGI.² I have preferred to say 'basket' or the like. It cannot be claimed that we know precisely what the object was, and consequently we cannot have much confidence in Pedersen's suggested etymology (88); he compares Lat. *patina*, Gk. *παράνη*. Certainly this etymological possibility does not help to establish the value *bat* for our sign. On the whole it is more likely that ^{G1}*pīt-tar* is merely a specialized use of *pīt-tar* 'wing'.

7. There remains the enclitic particle of identity, which is always written $\triangleright<$. Since Hittite orthography furnishes us no help, we can determine the pronunciation, if at all, only on the basis of etymology.

¹⁵ Consequently I have not written the causative *pattenu-* in HG and HGI., although I had suggested that reading in RHI 1.81.

¹⁶ Per Persson, *Beiträge zur indogermanischen Wortforschung* 825; Émile Boisacq, *Dictionnaire étymologique de la langue grecque* 820.

¹⁷ ZA NF 3.190 f.

Pedersen, AOr. 7.80-5,¹⁸ shows that the word can often be translated 'ipse' or 'ipsius' and that all its uses are capable of derivation from some such force. He proposes an etymological connection with Lith. *pāt* (*ten-pāt* 'eben dort') and Lat. *-pte* (*meō-pte ingenio*), deriving all three from the stem **poti-* 'householder'. Aside from the difficulty of accounting for the loss of the final syllable, this etymology requires us to believe that original *p* may appear as a single *p* in Hittite. The enclitic is common after final vowels (e.g. *a-pa-a-ši-la-be*, *a-pti-ya-be*, *ar-ḫa-be*, *e-eš-zi-be*, *ḫu-u-ma-an-ti-ya-be*, *me-ik-ki-be*, *nam-ma-be*, *nu-u-wa-be*), and yet the initial consonant is never written double, as is very often the case in other enclitics (e.g. *nu-ut-ta* = *nu* + *ta*, *nu-ud-du-za* = *nu* + *du* + *za*, *ša-a-ku-wa-at-ti-it* = *sakwa* + *tet*, *nu-ut-ták-kán* = *nu* + *ta* + *kan*). For this reason Pedersen's otherwise attractive etymology cannot be accepted.

I have suggested¹⁹ that Hitt. *-be* corresponds with IE *bhē*, *bhō* 'surely, truly', whence Av. *-bā*, 'truly, really', Gk. *φῆ* 'as', Goth. *-ba* 'if', Lith. *ba* 'surely, of course', to which Pedersen objects, 'da die zum Vergleich herangezogenen Wörter nichts von der eigentümlichen Bedeutung der hittitischen Partikel zeigen.' On the other hand, there is no more difficulty in connecting the Hittite meaning with the others than in connecting these with one another.

Possibly it is worth while to point out that in one Hittite passage the context requires the meaning 'as', which is recorded for Gk *φῆ*. Friedrich, Vert. 2.114 f., translates Hukk. 2.18 f.: *ma-a-an* (19) *A-NA* *ḫUTU-ŠI* *še-ir* *SAG.DU-KA-be* *še-ir a-ut-ti* as follows: 'und wenn du auf die Sonne (als) auf dein Haupt blickst'. Pedersen (82) says: 'wenn du auf die Sonne (d.h. mich) als auf dein eigenes Haupt blickst'. I do not mean to say that Hitt. *-be* here means 'as', but merely that such a passage as this might readily lead to a meaning identical with that of Greek *φῆ*.

More significant is the common use of Hitt. *-be* as final of words for 'both' (*2-be*, *2-uš-be*, *2-aš-be*, *2-e-lu-uš-be*, *2-i-la-be*, *2-e-ta-aš-be*), with which compare Goth. *bai*, Skt. *u-bhau*, Gk. *ἀμ-φω*, Lat. *am-bō* 'both'. If the etymology is correct Hittite here preserves the original use of the word as an enclitic particle, while the IE languages show various innovations all of which include a transfer of the inflection to the particle (cf. Lat. *ipsum* from *eumpse*). Such a history fits neatly into the Indo-

¹⁸ Cf. Götze-Pedersen, MS 64.

¹⁹ JAOS 50.127, HG 131.

Hittite hypothesis, but to those who reject that hypothesis it will perhaps seem improbable.

It has to be admitted that a semantic reconstruction that starts from so vague a meaning as 'surely, truly' is not very compelling. On the other hand, a word like our Hittite particle is not likely to be a loan word, and I can find no other possibility of an Indo-European etymology. Consequently the phonetic interpretation *-be* has a better chance of being correct than the interpretation *-pit*.

Thus we find clear evidence for the use of the sign 𐎧𐎶 in the values *be* and *pit*. There seems to be no direct evidence for the value *bat*.

THE DAIVA-INSCRIPTION OF XERXES

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On June 26, 1935, the expedition of the Oriental Institute of the University of Chicago found at Persepolis a number of inscribed stone tablets, made in the shape and fashion of clay tablets, and bearing an important document of King Xerxes. Two tablets bore the Old Persian text, one the Akkadian version, and one the Elamite. A translation with a certain amount of historical commentary was given out by the Oriental Institute as a newspaper release, appearing in *The New York Times* for Feb. 9, 1936, and also in *The University of Chicago Magazine* 28.4.23-5 (Feb. 1936). This formed the basis for my own remarks on the inscription, in *JAOS* 56.211-5 (June 1936). A photographic view of the tablets at the place of discovery, with some explanatory remarks by Eric F. Schmidt, of the Expedition, was given in the *Illustrated London News* for Feb. 22, 1936, page 328; an abstract of this was presented in *Archiv für Orientforschung* 11.91 (first semester 1936). The actual text in the original languages was not accessible until it was published by Ernst Herzfeld in *Archäologische Mitteilungen aus Iran* 8.56-77 (Nov. 1936); he had previously published in the *Revue de l'Histoire des Religions* 113.21-41 (Jan.-Feb. 1936) an address on *Die Religion der Achaemeniden*, originally delivered as an address at the Sixth Congress of the History of Religions at Brussels, Sept. 18, 1935, in which he drew upon the new material contained in these tablets. The latest bibliographic item which has come to my attention is a study by Hans Hartmann in *Orientalistische Literaturzeitung* 40.145-60 (March 1937).

By the courtesy of the Oriental Institute and of its Director, Dr. John A. Wilson, photographs of the two tablets in Old Persian characters have come to me, with permission to use them in the preparation of this article; and for their kindness I here express my hearty thanks to the Institute and to Dr. Wilson. I wish also to thank Dr. Herzfeld for information given in a personal letter.

The Akkadian and Elamite versions are each in 50 lines, covering both sides of the tablets. The Akkadian is complete, but the Elamite

has lost the lower right portion of the obverse and the corresponding portion of the reverse; only lines 1-11 and 39-50 are complete.

The two Old Persian tablets, designated as A and B, are identical, even to the division into lines, which shows that they were both made from the same draft. Copy A, containing 60 lines, is complete; B ends in the middle of line 51, and as it is the first part of the line which is lacking, the engraver was clearly of Aramaic schooling (so Herzfeld 62), since he was cutting the characters from right to left, whereas all three cuneiform writings proceed from left to right. The assignment of characters to lines is remarkably regular: lines 1-15 and 31-45 have each 27 characters (including word-dividers), and lines 16-30 and 46-60 have each 26 characters. It follows, from the agreement of the two tablets in the line-division, that when the tablets agree the errors must be assigned to the model draft. There are two characters which are imperfect in both copies: *abaraha* 17 becomes *abarana* by lack of the prior wedge of the *ha*, and the *a* of *ka-a* 46 consists of a single vertical under the horizontal. The only variations between the two tablets are in 31, 37, 45. In 31, the *pa* of *upariy* lacks the two small verticals in A, but is complete in B. In 37, the final character *na* (in *daivadāna-m*) is correct in A, but is miswritten *va* in B, probably (as Herzfeld 62 says) because *va* ends the preceding line. In 45, the *ma* of *maiyy* lacks the small middle vertical in B.

In the text which will be presented, great care has been taken to represent the original with accuracy. For Herzfeld's text is unsatisfactory as a record. He omits the word-dividers; inserts the nasal before stops and the *h* before *u* where the OP script omits them; he writes as superior letters the *i* and *u* before postconsonantal *y* and *w*, and the *y* and *v* when final after *i* and *u*. These points and certain variations in normalization we can allow for, and reach the original script; but there are others which cannot so be handled. I quote the items where his transliterations are misleading:

13, 28, 56: *θahatiʷ*, for *θa-a-ta-i-ya*

17: *patiyaxšaiʷ*, for *pa-ta-i-ya-xa-ša-ya-i-ya*

18: *aθahya*, for *a-θa-ha-i-ya*

22: *aθūra*, for *a-θa-u-ra-a*

23: *drayahyā*, for *da-ra-ya-ha-i-ya-a*

32: *passāvamaīy*, for *pa-sa-a-va-ma-i-ya*

34: *utāšim*, for *u-ta-ša-i-ma*

36: *pasāva*, for *pa-sa-a-va*

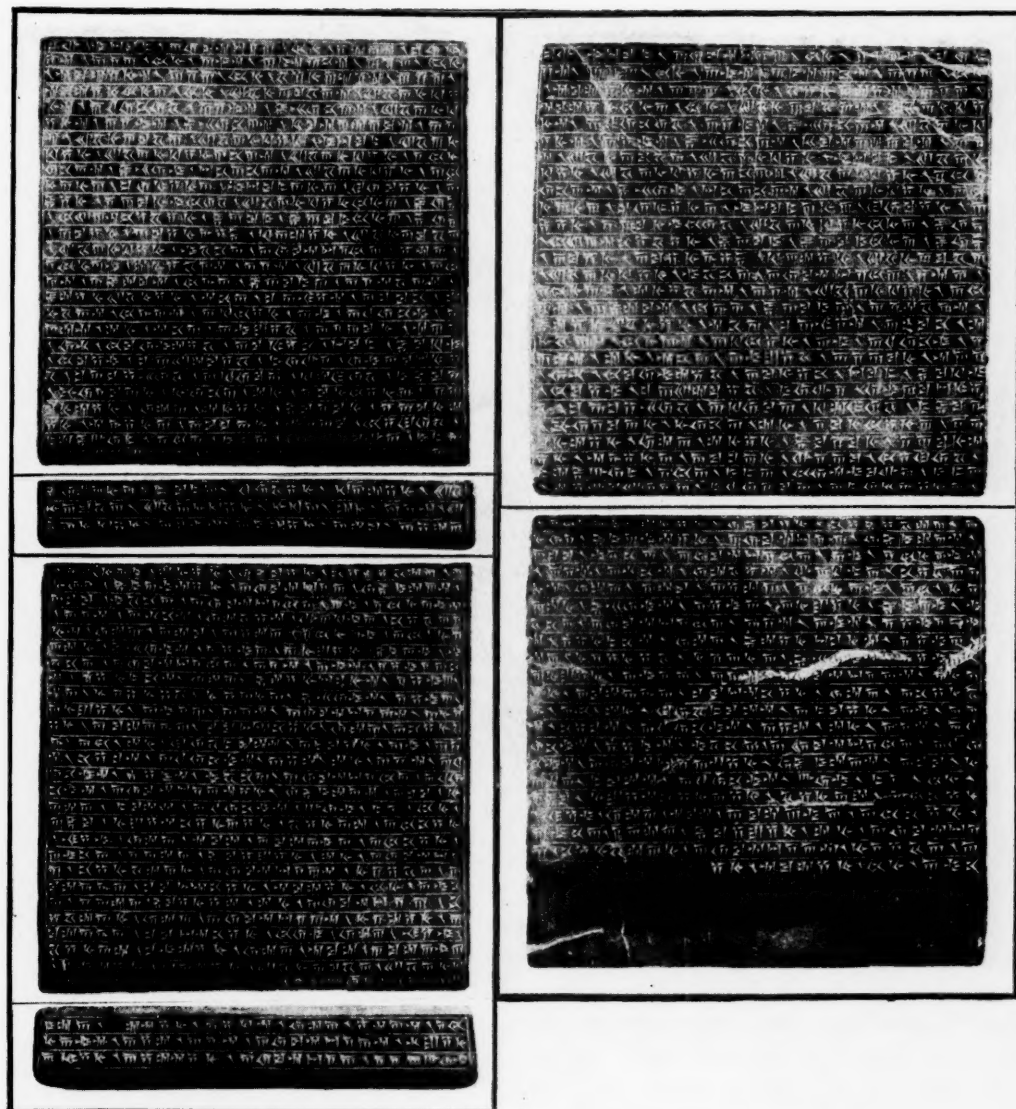
39: *yadīyaiša*, for *ya-da-i-ya-i-ša*

58: *[u]tāmaiyy*, for a blank and *ta-ma-i-ya*

The text now follows, with a translation, after which there is a commentary on the words and forms; in the commentary the word-divider is omitted from citations, unless there is a reason for diplomatic accuracy on this point:

- 1 бага : vazraka : auramazdā : hya : imām : būm-
- 2 im : adā : hya : avam : asmānam : adā : hya
- 3 : martiyam : adā : hya : šiyātim : adā :
- 4 martiyahyā : hya : xšayāršām : xšāyaθi-
- 5 yam : akunauš : aivam : parūnām : xšāyaθ-
- 6 iyam : aivam : parūnām : framātāram : ada-
- 7 m : xšayāršā : xšāyaθiya : vazraka : xšāya-
- 8 θiya : xšāyaθiyānām : xšāyaθiya : dahy-
- 9 ūnām : paruv : zanānām : xšāyaθiya : ah-
- 10 yāyā : būmiyā : vazrakāyā : dūrai : a-
- 11 piy : dārayavahauš : xšāyaθiyahyā : puça
- 12 : haxāmanišiya : pārsa : pārsahyā : puça
- 13 : ariya : ariyaciça : θātiy : xšayāršā
- 14 : xšāyaθiya : vašnā : auramazdahā : imā :
- 15 dahyāva : tyaišām : adam : xšāyaθiya : āh-
- 16 ām : apataram : hacā : pārsā : adamšām :
- 17 patiyaxšayaiy : manā : bājim : abaraħa : t-
- 18 yašām : hacāma : aθahiy : ava : akunava : d-
- 19 ātam : tya : manā : avadiš : adāraya : māda
- 20 : ūja : harauvatiš : armina : zraka : parθava
- 21 : haraiva : bāxtriš : sugda : uvārazmi-
- 22 š : bābairuš : aθurā : θataguš : sparda
- 23 : mudrāya : yaunā : tya : drayahiyā : dā-
- 24 rayatiy : utā : tyaiy : paradraya : dārayat-
- 25 iy : maciyā : arabāya : gadāra : hiduš :
- 26 katpatuka : dahā : sakā : haumavargā : sakā
- 27 : tigraxaudā : skudrā : ākaufaciyā :
- 28 putāyā : karkā : kūšiya : θātiy : xša-
- 29 yāršā : xšāyaθiya : yaθā : tya : adam : x-
- 30 šāyaθiya : abavam : astiy : atar : aitā
- 31 : dahyāva : tyaiy : upariy : nipištā : a-
- 32 yuda : pasāvamaiy : auramazdā : upastām :
- 33 abara : vašnā : auramazdahā : ava : dahyāvam
- 34 : adam : ajanam : utašim : gāθavā : nišāda-
- 35 yam : utā : atar : aitā : dahyāva : āha : yad-

- 36 ātya : paruvam : daivā : ayadiy : pasāva : va-
 37 šnā : auramazdahā : adam : avam : daivadāna-
 38 m : viyakanam : utā : patiyazbayam : daivā :
 39 mā : yadiyaiš : yadāyā : paruvam : daivā :



A

B

OLD PERSIAN TABLETS BEARING DAIVA-INSCRIPTION

Reproduced by courtesy of the Oriental Institute of the University of Chicago

40 ayadiy : avadā : adam : auramazdām : ayada-
 41 iy : artācā : brazmaniy : utā : aniyaš-
 42 ca : āha : tya : duškartam : akariy : ava : ada-
 43 m : naibam : akunavam : aita : tya : adam : ak-
 44 unavam : visam : vašnā : auramazdahā : aku-
 45 navam : auramazdāmaiy : upastām : abara : y-
 46 ātā : kartam : akunavam : tuva : k̄ā : hya :
 47 apara : yadimaniyāiy : šiyāta : ahaniy
 48 : jīva : utā : marta : artāvā : ahaniy :
 49 avanā : dātā : parīdiy : tya : auramazd-
 50 ā : niyaštāya : auramazdām : yadaišā : a-
 51 rtācā : brazmaniy : martiya : hya : avan-
 52 ā : dātā : pariyaita : tya : auramazdā : n-
 53 ištāya : utā : auramazdām : yadataiy : a-
 54 rtācā : brazmaniy : hauv : utā : jīva :
 55 šiyāta : bavatiy : utā : marta : artāvā
 56 : bavatiy : θātiy : xšayāršā : xšāyaθ-
 57 iya : mām : auramazdā : pātuv : hacā : ga-
 58 stā : utamaiy : viθam : utā : imām : dah-
 59 yāvam : aita : adam : auramazdām : jadiy-
 60 āmiy : aitamaiy : auramazdā : dadātuv

§1. 1-6. A great god is Ahuramazda, who created this earth, who created yonder sky, who created man, who created peace for man, who made Xerxes king, one king of many, one lord of many.

§2. 6-13. I am Xerxes, the great king, king of kings, king of lands containing many men, king in this great earth far and wide, son of Darius the king, an Achaemenian, a Persian, son of a Persian, an Aryan, of Aryan lineage.

§3. 13-28. Says Xerxes the king: By the favor of Ahuramazda, these are the lands of which I was king outside of Persia; I governed them, they bore tribute to me, they did that which was commanded to them by me, the law which was mine, that held them firm: Media, Susiana, Arachosia, Armenia, Drangiana, Parthia, Aria, Bactria, Sogdiana, Chorasmia, Babylonia, Assyria, Sattagydia, Sardis, Egypt, the Ionians who dwell in the sea and those who dwell beyond the sea, the Macians, Arabia, Gandara, Sind, Cappadocia, the Dahae, the Amyrgian Scythians, the Scythians with pointed caps, Skudra, the men of Akaufaka, the Puntians, the Carians, the Aethiopians.

§4.a. 28-35. Says Xerxes the king: When I became king, there is

within these lands which are inscribed above (one which) was restless. Afterward Ahuramazda bore me aid; by the favor of Ahuramazda I smote that land and put it down in its (proper) place.

§4.b. 35-41. And within these lands was (a place) where formerly the daivas were worshiped. Afterward by the favor of Ahuramazda I destroyed that establishment of the daivas, and I proclaimed, "The daivas shalt thou not worship!" Where formerly the daivas were worshiped, there I worshiped Ahuramazda and the holy Arta.

§4.c. 41-46. And there was other (business) which was done ill; that I made good. That which I did, all (that) I did by the favor of Ahuramazda. Ahuramazda bore me aid, until I completed the work.

§4.d. 46-56. Thou who (shalt be) hereafter, if thou shalt think, "Happy may I be while living, and when dead may I be blessed", have respect for that law which Ahuramazda has established; worship Ahuramazda and the holy Arta. The man who has respect for that law which Ahuramazda has established, and worships Ahuramazda and the holy Arta, he both becomes happy while living and becomes blessed when dead.

§5. 56-60. Says Xerxes the king: Me may Ahuramazda protect from evil, and my palace and this land. That I beseech Ahuramazda; that to me may Ahuramazda give.

14 *auramazdahā*: gen., the same orthography in 33, 37, 44, as well as in the other important inscription of Xerxes, found by Herzfeld in 1931 and published in AMI 4.117-32 (see LANG. 9.35-46). It is there found in lines 34 and 43 (see my suggestions LANG. 9.42). Both Darius and Xerxes elsewhere write *-dāha* and *-dāhā* for the genitive. But cf. note on *āhām* 15-6, below.

15 *tyaišām*: gen. pl. fem., as in Dar. Pers. e 3-4; perhaps the abnormality of a gen. pl. fem. *-āhām* (< *-āsām*) caused the masc.-neut. form of pronouns to be utilized as fem. also (substantive *-ā-* stems have the gen. pl. in *-ānām*, which also is identical with the masc.-neut. gen of *-ā-* stems).

15-6 *a-ha-a-ma* = *āhām* or *ahām*: for this form Bh. 1.14 (etc.) has *a-ha-ma* = *āham*, a correct writing. Herzfeld 65 believes this to be on a par with the *-ahā* gen. in *auramazdahā* (14, q.v.; etc.) and the short vowel in *ahāniy* (47, 48; q.v.), all indicating that two *ā*'s separated only by *h* had been contracted to *ā*, and might be written variously. For this view he adduces some evidence from Elamite transcriptions of OP words.

18 *abaraha*: with the *ha* written defectively; it lacks the first wedge, and is therefore identical with *na*. Herzfeld 64 reads *abaran*, regarding it as an instance of the writing of the final nasal, and considering Dar. NRa 19–20 *aba[ra]/ha* as having the final character miswritten (the *ha* at the beginning of 20 is visible in the photograph; so Weissbach, Keilinsch. d. Achäm. 88 n., ad loc.). But a third plural ending *-ha* is the proper form after *-a-* for the same ending which appears as *-ša* after *-i-* and *-u-* (and extended to position after *-a-*; Meillet-Benveniste, Gram. du Vieux-Perse §223 fin.).

18 *a-θa-ha-i-ya* = *aθahiy*; 3rd sing. pass. For the writing *-ha-i-* = *-hi-* (as contrasted with the usual omission of the *-i-* after *-ha-*, if the syllable is *-hi-* and not *-hai-*), cf. 23 *da-ra-ya-ha-i-ya-a* = *drayahiyā*, which contains the Iranian equivalent of Skt. (loc.) *jrayasi*, + the postposition *-ā*. The writing *ha-i-du-u-ša* = *Hiⁿduš* 25 is regular in this word. The use of *-ha-i-* for *-hi-* in the only places in this inscription where there is etymological warrant for the vowel, shows that *aθahiy* is the proper normalization, and that *a-θa-ha-ya* in Bh. 1.20, 1.23–4, and Dar. NRa 20 should be normalized *aθahy* (with Meillet-Benveniste §207), not *aθahya* as a 3rd sing. pass. with active ending attached to the passive suffix (**aθah-ya-t*). Cf. also on *yadimaniyāiy* 47.

23 *ta-ya* = *tya*: defective writing for *tyaiy*, since it is precisely equivalent to *tyaiy* in 24. Two other instances of the defective writing of this termination are found in this inscription: *aniyašca* 41–2 for *-ciy*, and *pariyaita* 52 for *-tiy* (qq.v.).

23 *drayahiyā*: see on *aθahiy* 18.

26 *dahā*: a new ethnic in OP inscriptions. The Daae are mentioned as a Scythian tribe by Strabo 7.3.12, 11.7.1, 11.8.2, 11.9.2,3; the name survived in the Dahistan of mediaeval times, east of the Caspian Sea. Other data are given by Herzfeld 72, and by Pauly-Wissowa, Real-Enc. d. cl. Altertumswiss. 4.1945, s.v. *Daai*.

27 *skudrā* and 28 *kūšiya*: as contrasted with *skudrā* and *kūšiyā* Dar. NRa 29–30. Apparently the final character of *kūšiyā* was omitted in a preliminary draft, and when the omission was noted the insertion was made at the end of the wrong word, in the preceding line, immediately above; cf. a similar error in another inscription of Xerxes, LANG. 9.39. But the present error was made before the final preliminary draft, which had no irregularity in the number of letters per line.

27 *ākaufaciya*: 'the men of Akaufaka', in which the initial *a-* is not the negative (as I took it in JAOS 56.213), but the intensive preposi-

tional prefix, so that the name means 'the men of the Mountain Land'. The name survives in the modern Kohistan, a small mountainous district in the North-West Frontier Province of India, not far north of Karachi, and close by Baluchistan. There is another Kohistan in Afghanistan, an important district north of Kabul. For other data, see Herzfeld 72.

28 *putāyā*: this must be the proper reading also in Dar. NRa 29-30, where *put[i]yā* is restored. The basis for the *-i-* has been the Elamite *pu^h-ú-ti-ia-ap* (Weissbach's transliteration); but its insufficiency is shown by the lack of a special sign for *ta* in the Elamite syllabary (according to Weissbach's list, Keilinschr. d. Achämen. lxxvii-lxxxii).

30 *astiy*: a curious error for *āha* 'there was'; that it has this meaning, seems to be shown by the Akk. equivalent *ibaš*, found for *āha* in 35 and 42.¹ Possibly it is to be regarded as an historical present.

31 *tyaiy*: nom. pl. masc., with fem. antecedent *dahyāva*. Either *dahyāva* 'provinces' was felt to be a masc. idea, 'men of the provinces' (many of the names of provinces are masc. pl. ethnics), or else the masc. *tyaiy* had assumed fem. function also, like *tyaišām* 15.

31-2 *ayuda*: pret. 3rd sing. (or pl.?) of the root seen in *yau[datim]* NRa 32, and in Av. *yaoz-* 'to be in restless motion'. It is curious that it is not preceded by a relative pronoun as subject; cf. the similar idiom in Bh. 1.48-50.

33 *ava*: defective writing for *avām*, since it modifies *dahyāvam*.

33 *dahyāvam*: here and in 58-9 this form replaces the regular *dahyāum*. If *ī* and *ū* can be analyzed *-i-ya-* and *-u-va-* (see on *nīšādayam* 34), then *-yāu-* might be analyzed *-ya-a-va-* instead of *-ya-a-u-*. Or the writing may be evidence of a tendency of *-āum* to become *-āuṇi*, whence *-āvam*. Cf. the acc. of Gk. *vaūs*: Att. and Dor. *vaūv*, Homeric *vṛa*. But Herzfeld 66 is wrong in citing as a parallel the variation *Hi^rdāv* and *Hi^rdauv*, loc. of *Hi^rduš*; the prior form is a misreading *ha-i-da-a-va* for *ha-i-da-u-va* in Darius Susa Record 44, where the *-u-* is represented by the lower part of two verticals; cf. JAOS 51.209.

34 *nīšādayam*: the same as *nīyašādayam*, Dar. NRa 36; cf. *nīštaya*

¹ I should prefer to take *a-sa-ta-i-ya* as a substantive, *astiya*, meaning 'population' or the like, a derivative of root *ah-* 'be' or of *āh-* 'sit', or perhaps of *ā + stā-* 'stand'. It would then be the subject of *ayauda* in 31, and the sentence would mean 'the population was in turmoil within these provinces which are written above.' Can it be that *ibaš* in the Akk version is a miswriting of *na-aš* 'men' (collectively), or that the scribe was operating with a vocabulary in which he failed to distinguish between OP homographs?

52-3 and *niyaštāya* 50, *abījāvayam* and *abiyajāvayam* in other inscc. of Xerxes (LANG. 9.37 line 40, and 9.230 line 9), *nīyasaya* Dar. NRb 5 (for *niyayasaya*). There is similar variation between -u- and -u-va: *ūja* 20 in this insc., *ūjaiy* (loc.) Dar. Susa Record 46, and *wja* (usually read *uwaja*) and its derivatives, occurring many times; *parūnām* and *paruwnām*, *dahyuwnām* and *dahyūnām*, etc. Herzfeld AMI 4.127 was, I think, the first to point out the significance of this variation: that -iya- contracted to -ī-. But -u-va- for -ū- rests upon a false analysis of the sound. We should therefore write -ī- and -iy-, -ū- and -uv- in our normalizations, and not -iya-, -u-va-, unless there is warrant for dissyllabic pronunciation.

35-6 *yadātya*: similar to *yaθā tya* 29, but not divided; cf. also *mātya* 'that not, lest' in Bh. 1.52, etc. *Yadā* has not been found before, but is the relative correlative to *avadā* and to *ada-* in *adataiy* Dar. NRa 43 and 45, and in *adakaiy* Bh. 2.11, etc. The addition of *tya* to the relative conjunctions is paralleled by the older English *when that*, etc.

36 *daiwā*: the first occurrence of the word in OP; Av. *daēva*- 'false god, demon', Skt. *deva*-, Lat. *deus* and *dīvos*.

36 *a-ya-di-i-ya* = *ayadiy*: 3rd sing. aor. pass., usable also as plural; cf. *abariy* Dar. Susa Record 41 and 47, with comment JAOS 53.19 and 20. The OP forms of *yad-* are considerably increased by this inscription. Previously there were only *yadātaiy* 3rd sing. pres. subj. and *ayadaiy* 1st sing. pret. ind., to which we now add *ayadiy* 36 and 40, indic. pres. *yadataiy* 53, and *ya-da-i-ya-i-ša* 39, *ya-da-i-ša-a* 50. The verb is middle in form where active meaning is intended, with the passive *ayadiy* when passive meaning is essential. I take *yadaišā* 50 as opt. pres. with middle ending, equal to Av. *yazaēša* (Cf. also Gk. *φέρω*), and *yadiyaiš* (-da- miswritten for -di-) as containing the passive suffix -yá- (with middle meaning) and therefore equipped only with the active personal ending. Cf. Skt. *kriyeš* (opt. pass.), Av. *jaiḍyōiš* (opt. act., with -ya- tense-suffix). For the -ya- passive in Avestan, cf. indic. *yazənte* with middle ending (< -yantai), and *yazinti* with active ending (< -yanti); Reichelt, Awest. Elementarbuch §615. Herzfeld 67 takes *yadiyaiša* (his normalization) as fut. pass., citing from NRb *kariyaiša* and *fraθiyaiša* (his normalizations in my system of notation). While *kariyaiša* in 9 is a probable reading, its identification as a form is entirely uncertain; *fraθiyaiša* I cannot locate; and we do not want a fut. pass., in *yadiyaiš* 39.

37-8 *daivadānam*: the second part from *dā-* 'put', Skt. *dhā-*, and therefore meaning 'establishment'. Herzfeld 74 thinks that it means 'Behälter', and is used in a derogatory way.

38 *viyakanam*: impf. of *vi* + *kan-* 'dig', a combination found in Bh. 1.64, 4.71, 73, 77, and here meaning 'raze to the ground'. Cf. its similar use in Bh. 1.64 *āyadanā tyā Gaumāta hya maguš viyaka adam niyačārayam* 'the temples which Gaumata the Magian destroyed I restored'.

38 *patiyazbayam*: impf. of *patiy* + *zba-*, Av. *zbā-* and *zav-* 'call'; the present formation is precisely matched by Av. *zbaya-*, Skt. *hvaya-* (Skt. root *hū-* or *hvā-*).

39 *yadiyaiš*: see under *ayadiy* 36.

39 *yadāyā*: the Akk. translation gives *ašar* both for this and for *yadātya* 35-6, and we must conclude that the same meaning is meant by both orthographies. Herzfeld 66 regards *yadāyā* as *yadā* with a relative or locative element *-yā*, and thinks *yadātya* a graphic error. But *yadātya* can be more easily justified (see note thereto), and *ya-da-a-ya-a* may be a semi-dittographic error for *ya-da-a*, which ought to have the same meaning whether attended by *tya* or without it.²

41 *artācā brazmaniy*: also 50-1, 53-4; comitative instrumental of *arta-* with added *-cā*, modified by the adj. *brazman-* in the loc., showing the syncretism of the cases so familiar in the later Avesta. A similar instrumental with *-cā* is seen in Bh. 1.65 *vi-θa-ba-i-ša-ca-a* (however normalized). *Arta-* is known in OP as the first element of the names *Artaxšačā* and *Artavardiya*, and is identical with Av. *aša-* 'Righteousness' and Skt. *ṛta-* 'cosmic order'. *Brazman-* is the same stem as Skt. *brahman-* 'religious devotion, prayer', but is here an adj.; unless indeed we are to normalize *brazmaniya* as a defective writing for *-iyā*, instr. of *brazmaniya* = Skt. *brahmaṇya-* (so apparently Herzfeld 69). I cannot accept the view of Hartmann, OLZ 40.145-60, that the phrase means 'Ich verehrte den Ahuramazda durch *arta* und beim *brazman*', *-cā* 'and' being attached only to the prior element in the pair and *barzmani* (so normalized) being the OP equivalent of Av. *barəsman-* 'bundle of sacred twigs used in the ritual'.

41-2 *a-na-i-ya-ša-ca*: miswritten for *a-na-i-ya-ša-ca-i-ya* = *aniyašciy*, which is found Bh. 4.46, Xerx. Pers. a 13. For the omission of *-i-ya* in this inscription, cf. note on *tya* 23.

46 *tu-u-va*: normalized *tūv* by Herzfeld, but as only *tu-u-va-ma* is found elsewhere, it is probably *tuva*, with failure to write the final nasal.

² There is one other possibility, which I do not regard as very probable: the original text may have lost a word in the drafting, and have been *daivā : mā : yadiyaiš : yadāyā : (yadātya :) paruvam* etc., 'thou shalt not worship the daivas with worship; where before . . .' This is suggested by *hacā yadāyā* Bh. 3.26, 'from loyalty'. For haplographic loss in the OP inscriptions, cf. JAOS 35.342.

46 *ka-a* = *kā*: the *a* is on both tablets written with a single vertical hasta under the horizontal. The scribe's model copy was probably defective or unclear, cf. on *utamaiy* 58.

47 *ya-di-i-ma-na-i-ya-a-i-ya* = *yadimaniyāiy*: this is the same as in Dar. NRa 38-9 *yadipad[i]y maniy[ā...]*, Dar. Pers. e 20 *avaθā maniyāhay*, also Bh. 4.39 *avaθā man[...]*. Herzfeld 66 makes the identification, noting that *ya* and the divider are lacking at the end of the first word, and *ha* in the second word, the phrase being properly *yadiy* : *maniyāhaiy* 'if thou shalt think'. He believes that [*āhai*] had been contracted to [*āi*], and that *-āhaiy* of the earlier language could not have been written in the OP cuneiform. But the reluctance to write *-ha-* before *-i-* was operative only in writing *-hi-*, not in writing *-hai-*, cf. *hainā* 'army'. Whatever the cause may be, we have here alternative orthographies, one lacking the *-i-* character, the other lacking the *-ha-*; cf. *paribarāha-diš* Bh. 4.74 and *vikanāha-diš* Bh. 4.77 (but *paribarāhy* Bh. 4.78 and *vikanāhy* Bh. 4.71, without the enclitic pronoun), and *aištātā* Bh. 1.85, for **ahištata*, cf. Gk. *ἵστατο* (analogical temporal augment, instead of the syllabic augment). Thus *ma-na-i-ya-a-ha-i-ya* in this inscription lacks the *-ha-*, but in the others (quoted above) lacks the *-i-*.

47 *šiyāta*: the adj. which denotes the state of being in *šiyātiš*; = Av. *s(y)āta-*.

47 *ahaniy*: repeated in 48; 1st sing. pres. subj. of *ah-* 'be'. But as Herzfeld 65 remarks, we expect *ahāniy* (= Skt. *asāni*). There may have been an analogical shortening of the vowel in OP in this form; cf. such forms as *akaniy*, 3rd sing. pret. pass. of *kan-*, and *abariy*, *akariy*, *ajaniy*, *aḥaiy*, *avaniy*, *ayadiy*, all with the short vowel (Meillet-Benveniste §207; Kent, JAOS 53.15 and 54.37), although such roots usually show the vriddhied vowel in Skt.: *akāri*, *agāmi*, etc. (Whitney, Skt. Gram. §844; Thumb-Hirt, Hdb. d. Skt. §539), and the same vocalization is found also in Avestan. The long vowel appears in OP only in *adāriy* Bh. 2.75 and 2.90.

48 *jīva* and *marta*: contrasted, like *šiyāta* and *artāvā*, and placed in chiasmic arrangement with them here, though not in 54-55. The only other occurrences of root *mar-* 'die' in OP are in *wāmaršiyuš amariyata* Bh. 1.43. Cf. LANG. 9.41-2, for a euphemism in speaking of the death of Darius.

48 *artāvā*: nom. sing., the stem precisely equivalent to Av. *ašāvan-* 'characterized by Arta or Asha', i.e., 'righteous', and here denoting the blissful state of the true religionists after death.

49 *avanā : dātā : pa-ra-i-di-i-ya*: The same idiom is here as in Bh. 1.23 *tyanā manā dātā apariyāya* '(these provinces) respected my law', and in Xerxes' Susa inscription in mutilated form, lines 41-3 [*dātam*] : *tya : manā : hacā : av[anā : apariyā]ya* (cf. JAOS 54.43 and 46). The same recurs in our present inscription at 51-2 *martiya : hya : avanā : dātā : pa-ra-i-ya-i-ta : tyā : auramazdā : nīštāya*. Comparison makes it clear that the verb to which the abl. *dātā* is attached is *pari + i-*, as I argued twenty years ago with only Bh. 1.23 at my command, in JAOS 35.331-6, taking *apariyāya* as a doubly augmented preterit, equal to a hypothetical Gk. *ἐ-περι-ῆεν. We have then quite correctly the basis for a normalized *parīdiy*, 2nd sing. inv., in line 49, and for *pariyait(iy)*, 3rd sing. pres., in 52, the last two characters being omitted as in *tya(iy)* 23 (where see note) and *aniyašc(iy)* 41-2. Herzfeld 66-7 takes these two verbs as forms of *parā + i-*, and has difficulties with the orthography; but *parā + i-* means 'go forth, proceed', which gives an inappropriate meaning in these passages in combination with an ablative (assured by the *hacā* in one passage quoted above).

The interpretation of these forms as from *pari + i-* is confirmed by the Akk. equivalents, which Herzfeld transliterates as *sigi* and *isigū*. My colleague and friend, Prof. E. A. Speiser, informs me that the root of these is not pure Akk., but a borrowing from Aramaic, where the root *sāg* means 'to surround, place a fence around', with a derivative substantive *syāg* 'fence'. The word has not yet received listing in the Akk. dictionaries; but the Akk. of this inscription contains many borrowed words, notably from the OP itself.

50 *niyaštāya*: cf. *nīštāya* 52-3, and note on *nīšādayam* 34-5.

50 *yadaišā*: cf. note on *ayadiy* 36.

52 *pariyaita*: cf. note on *parīdiy* 49.

52-3 *nīštāya*: cf. note on *niyaštāya* 50.

58 *+ta-ma-i-ya* = [*u*] *tamaiy*: the *u* is not written, but a blank space is left on the stone; the model copy evidently had the character, but it was illegible to the engraver.

The present inscription of Xerxes throws much additional light on the language of the Old Persian inscriptions. Thus we find the following new words: *dahā* 26; *ākaufaciya* 27; *yadātya* 35-6 and the dubious *yadāya* 39; *daivā* 36, 38, and *daivadānam* 37-8; *patiyazbayam* 38; *artā* 41, 50-1, 53-4; *brazmaniy* 41, 51, 54; *duškartam* 42; *šiyāta* 47, 55; *marta* 48, 55; *artāvā* 48, 55. There are the following new forms from known stems, or new orthographies for known forms: *aṭahiy* 18; *drayahiyā* 23;

dārayatiy 23-4, 24-5; *putāyā* 28; *ayuda* 31-2; *dahyāvam* 33, 58-9 (if not an error); *viyakanam* 38; *yadiyaiš* 39; *ahaniy* 47, 48; *jīva* 48, 54; *parīdiy* 49; *yadaišā* 50; *pariyait(iy)* 52; *yadataiy* 53. There is the new conjunctive phrase *yaθā tya* 29.

Clearly our present inscription is not a cento edited from copies of older inscriptions held in the archives as models for later scribes: there is too much new material. The formulaic portions are however close to the Nakš-i-Rustam inscription of Darius, with the exception that 'Xerxes son of Darius the king' replaces 'Darius son of Hystaspes'. Otherwise, Xerxes' §1 is identical with NRa §1, except for *parūnām* twice instead of *paruvnām*. §2 differs from NRa §2 only in having *paruv* : *zanānām* and *ariyaciça* instead of *vispazanānām* and *ariya* : *ciça*. §3, lines 13-28, is nearly the same as NRa 15-30, yet with some significant differences; these will be mentioned later. In the long §4, lines 28-56, the only familiar material is in lines 43-6, found in NRa 48-51, with one change: *aita tya adam akunavam* for NRa *aita tya kartam ava*. §5, lines 56-60, is the same as NRa 51-5, with two orthographic differences: *dahyāvam* and [u]tamaiy instead of *dahyāum* and *utāmai*.

The opening sentence of §3 naturally reflects the difference in the historical background: Darius says these were the provinces 'which I seized', Xerxes says 'of which I became king'. Darius 22 has *adariya*, Xerxes 19 has *adaraya*; it is simpler to take *adaraya* as active and regard the inserted *i* in *adariya* as an error (*avadiš adaraya* 'that held them'). There are considerable differences in the list of provinces, not only in the order, which is entirely changed, but in the items. Darius has 29 items, including *Yauna*, *Sakā tyaiy paradraya*, *Yaunā takabarā*; Xerxes has *Yaunā tya(iy) drayahiya dārayati utā tyaiy paradraya dārayati*, *Dahā*, *Ākaufaciya*; the other 26 are identical, except for the spellings *Uvja* and *Suguda* of Darius, and *Ūja* and *Sugda* of Xerxes.

These orthographic differences, differences in the list of provinces, and the entirely new material in §4 of the present inscription, including many new words and forms, show that the writing of Old Persian was in Xerxes' time still a living process. New words and forms were reduced to writing; the proof of this lies before our eyes even in words already known, when we see the insertion of *i* between *ha* and *ya*, if demanded by actual pronunciation: *aθahiy* and *drayahiyā*. The very errors of orthography indicate independence from archival tradition; I list here the words and forms in which error is certain or suspected (see my notes on the words): *auramazdahā* 14, 33, 37, 44; *āhām* 15-6; *abarana* for *abaraha* 17; *tya* 23; *skudrā* 27 and *kūšiya* 28, for *skudra* and *kūšiyā*; *tyaiy* 31; *ava* 33; *dahyāvam* 33, 58-9; *yadiyaiš* 39 (-*da-i-* for -*di-i-*); *yadāyā* 39; *aniyašca* 41-2; *tuva* 46; *yadimanīyāiy* 47; *pariyaita* 52.

These errors all fall into three or four types; difficulties with *āhā*, with *h* before *i*, with final *-iy* and *-m*; confusion of letters similar in form; misplaced corrections. These are precisely the phenomena which we expect to find in inscriptions—the first group of ‘difficulties’ being natural in reducing to written form words in which some slight phonetic changes were under way.

The historical and theological aspects of this inscription are both interesting and important, but must be touched on only briefly; I refer the reader to the brief account in *The Univ. of Chicago Magazine*, and to the articles by Herzfeld and Hartmann. I agree with them that the events lie in the period 486 to 480, for various reasons, notably (1) that the wording of 29–30 implies that Xerxes had not long been king, (2) that in the opening phrases of the sections Xerxes calls himself ‘Xerxes the king’, not ‘Xerxes the great king’, as he does later, (3) that the items in the list of provinces indicate a date before the battles of Salamis and Plataea. In the OP version Xerxes speaks only of a single province (*dahyāvam* 33, *-šim* 34) that rebelled, and of a single place of false worship (*daivadānam* 37–8) that he destroyed; Hartmann 159 suggests that the destroyed temple was that of Bel-Marduk at Babylon, which, according to Herodotus 1.183, Xerxes robbed of its treasures, killing the high-priest in the process. This is in opposition to Herzfeld’s view (75) that the uprising was led by the Magi of Media. Against the view of Herzfeld and Wilson, that we have in this inscription evidence that Zoroaster’s convert *Vištāspa* was identical with *Vištāspa* or Hystaspes, the father of Darius, I remain of the opinion expressed in *JAOS* 56.214–5.

It is perfectly clear, however, that Darius and Xerxes were adherents of the Zoroastrian religion, if additional evidence of this were needed; and we have a goodly harvest of theological terms added to our small OP list:

daiva- ‘false god’, = Av. *daēva*-.

arta-, either abstract ‘justice’ or the archangel (Amshaspand) ‘Righteousness’, Av. *aša*-.

brazman-, an adj. meaning ‘holy’ or the like, Skt. *brahman*-.

duškarta- ‘ill-done, evil work’, the opposite of *naiba*-.

naiba- ‘good’ in a religious sense, rather than ‘beautiful’ merely; it seems to have replaced **vahu* in this dialect (Av. *vohū*, Skt. *vasu*).

siyāta- ‘peaceful, happy’, the condition of one living in *šiyātiš*, which is the desideratum for those still living (*jīva*) on earth; Av. *šyāta*- or *šāta*-.

artāvan- ‘possessed of *arta*-’, descriptive of the state of those who are happy in the life after they are dead (*marta*); Av. *ašāvan*-.

MISCELLANEA

THE PAST TENSE OF 'TO BE' IN HOMER

The Homeric poems are written in a *Kunstsprache*; the basic contribution to the understanding of its formation is Fick's recognition of the fact that the development began with the composition of dactylic poetry in some Aeolic dialect. Now Aeolic is a term with many connotations; to escape them I shall, when dealing with the dialect that lies at the basis of the Homeric language, speak simply of the *x*-dialect. Of this we can say that it was once part of a dialect area in other parts of which were types of speech known to us in much later continuants from the records of Cyprian, Arcadian, Lesbian, Thessalian, and Boeotian.¹

In Greek the past tense of the verb 'to be' is made up of forms derived from either the perfect or the imperfect of Indo-European:² *ἦα*, *ἦστον*, *ἦστην*, *ἦμεν*, *ἦτε* (analogic for *ἦστε*) may be traced to either; *ἦσθα* is marked by its ending as originating in the perfect.³ The forms of the 3d person singular and plural offer a more complicated problem, which the peculiarities of epic style render the most interesting.

Of the 3d sing. primitive Greek must have inherited both *ἦs* < **ēs-t* and **ηε* < **ēs-e*. The competition between them is over in each of the Greek dialects by the beginning of our records, but there is no difficulty in assuming that it continued into the *x*-dialect. Since in the most closely related dialects *ἦs* wins out, we may further assume that in the *x*-dialect **ηε* was already an archaism; and that, as frequently happens to obsolescent forms, it was restricted to certain positions—or, to speak more definitely, to the verse-close.

Of the 3d plural in the *x*-dialect nothing definite can be said except that it was metrically equivalent to *ἦσαν*. It may have been a continuant of **ēs-ent* (cf. Delph. *ἦν* < **ηεν*), perhaps analogically remade (cf. Boeot. *παρεῖαν*), or it may have derived from the form of the perfect.

Noteworthy is the absence of 'unaugmented' forms; evidently they

¹ The last two show a considerable admixture of other elements.

² Brugmann-Thumb 319; Hirt, *Hdbuch*² 504; E. Hermann, *Sprachw. Kommentar* 99.

³ The continuant of the imperfect **ēs-s* became homonymous with the 3d sing., and was handicapped in its competition with *ἦσθα* by the fact.

have not been able to stand the competition of the augmented forms supported by the reduplicated perfects that coincided with them. Besides, an unaugmented form $*\epsilon s$ corresponding to ηs would have been handicapped by its overshortness.

In pre-Ionic the development took a different turn. Here it was ηs that disappeared, while with the spread of the movable nu $*\eta\epsilon$ developed a sandhi form $\eta\epsilon\nu$ that brought it under the influence of the plural $*\eta\epsilon\nu < *ē s-ent$. Beside the latter were two competitors: an unaugmented $*\epsilon\epsilon\nu$, and $\eta\sigma\alpha\nu$, which (as Hirt suggests) was probably a remodeling of the perfect. A number of analogic changes followed which, with the usual oversimplification, may be represented by various proportions:

$$*\eta\epsilon\nu \iota\pi\pi\omicron\iota : \eta\epsilon\nu \iota\pi\pi\omicron\varsigma = *\eta\epsilon\nu \lambda\acute{\upsilon}\kappa\omicron\iota : x (\eta\epsilon\nu \lambda\acute{\upsilon}\kappa\omicron\varsigma)$$

$$*\eta\epsilon\nu \iota\pi\pi\omicron\iota : *\epsilon\epsilon\nu \iota\pi\pi\omicron\iota = \eta\epsilon\nu \iota\pi\pi\omicron\varsigma : x (*\epsilon\epsilon\nu \iota\pi\pi\omicron\varsigma)$$

and after this also:

$$*\epsilon\epsilon\nu \iota\pi\pi\omicron\varsigma : *\epsilon\epsilon\nu \lambda\acute{\upsilon}\kappa\omicron\varsigma = \eta\epsilon\nu \iota\pi\pi\omicron\varsigma : x (\eta\epsilon\nu \lambda\acute{\upsilon}\kappa\omicron\varsigma).$$

As a result $*\eta\epsilon$ disappeared, $*\epsilon\epsilon\nu$ became also a singular, and there was left a pair of forms $\eta\epsilon\nu$, $*\epsilon\epsilon\nu$ used indifferently for singular or plural. In the latter function they had to compete with $\eta\sigma\alpha\nu$ and their defeat was obviously fore-ordained; for $-\epsilon\nu$ was frequent in the singular, $-\alpha\nu$, $-\sigma\alpha\nu$ in the plural, while $-\epsilon\nu$ as a plural was otherwise unknown.⁴ Later the proportion $\eta\epsilon\nu : \eta\sigma\alpha\nu = *\epsilon\epsilon\nu : x$ produced the form $\epsilon\sigma\alpha\nu$. Furthermore must be noted the presence of $\epsilon\sigma\kappa\epsilon$, a distinctly Ionic form; for the warmly welcomed discovery of $\eta\sigma\kappa\epsilon$ in Alcaeus has on reexamination of the papyrus proved to be, in Lobel's phrase (Alk. 168) 'mera somnia'. Ionic had reached this stage when its speakers took over epic poems of the x -dialect.

The development posited can be checked only if there can be found in the Iliad fragments of poetry that was originally composed in the x -dialect. Guided largely by linguistic criteria⁵ Robert and Bechtel have claimed as such: (1) fragments totalling 2146 lines, that seem to come from an Urilias; (2) fragments of other poems, the Koon episode Λ 218-63, and the oldest parts of the *Μενελάου καὶ Πάριδος Μονομαχία*.⁶ I am acquainted with the objections that have been urged: the fragments are not long passages, too many interpolations are assumed, too many emendations are made. These objections have never weighed heavily with me; those who urge them are in reality insisting that the linguistic analysis shall lead to separate lays such as Lachmann hoped—

⁴ Cf. Bechtel, Gr. Dial. 3.219-20.

⁵ Summarized by Bechtel, Vocalcontr. ix-x.

⁶ For details consult the index to Robert's Studien zur Ilias, Berlin 1901.

a century ago—to find. Now, it has been long since recognized that the lay theory is hopelessly oversimple. In its place has been put a compilation theory: the Iliad is the work of some man using for his own purposes earlier sources. If so, we must expect to find: (1) reworked passages, ones that can be restored to their original form only by emendation; (2) passages added to, or inserted in, one of the earlier sources, interpolations we may call them provided we guard ourselves against the ambiguity of the term; and (3) a consequent greater or less interruption of the continuity of the text of the sources. Difficulties of this sort are to be expected; and the real question is whether those found are sufficient to outweigh the difficulty of explaining otherwise the fact that metrically secure Ionicisms are unequally distributed in our text. The only satisfactory refutation of Bechtel would be to show that another equally satisfactory Urilias can be posited with equal ease. That has not been attempted, and consequently I do not hesitate to believe that Bechtel's results are correct in the main. It will be a severe test both for them and for the theory I have sketched to attempt to fit the two together.

If both are correct, these fragments will contain no examples: (1) of *ἔσκε*; (2) of *ἦεν* except at the close of a verse; (3) of **εεν* scanned as an iambus; or (4) of *ἔσαν*. The first of these points had already been noted by Bechtel; the other three are new and raise but slight difficulties.

Five difficulties are met of which two are merely illusions.

A line of the Urilias A 321 begins in our text *τῷ οἱ ἔσαν*, but it is no emendation to read *τῷ ἡ(οι) ἦσαν*. For in Attic writing of the sixth century the two could not be distinguished—either one would be written *TOIOIEΣAN*. That is all that is traditional, and we are free to interpret it either way. That the complete elision of the diphthong occasions no difficulty is shown by the close of A 170 *οὐδέ σ(οι) δίω*, and by other examples cited in Monro, *Hom. Gram.*² 350.

Following Nauck, Bechtel emended another line of the Urilias

Λ 84 *δῶρα μὲν ἦως ἦν καὶ ἀέξετο ἱερὸν ἦμαρ*

to

δῶρα μὲν αὖως ἦεν ἀέξετό τ' ἱερὸν ἄμαρ

thus creating an example of *ἦεν* within the verse. The solution chosen by him was not the correct one. Other possibilities were weighed (Robert 161), but nothing more was needed, as Meister (*Hom. Kunstspr.* 108) implies, than the substitution of *ἦς* for *ἦν*.

The third and fourth difficulties must be considered together.

The opening of the first battle is preceded by three carefully arranged

similes: the first illustrates the silent discipline of the Achaeans, the second the noisy disorder of the Trojans, the third the clash of the two armies. In our text this is interrupted by a mythological disquisition about the presence of Athene and Ares and various battle demons. The lateness of its tone was noticed by Leaf, and the passage Δ 439–51 is properly rejected by Robert (211), who claims the rest of Δ 422–69 for the *Urilias*. Now the couplet immediately preceding this interpolation:

οὐ γὰρ πάντων ἦεν ὁμός θρόος οὐδ' ἴα γῆρυς,
ἀλλὰ γλῶσσ' ἐμέμικτο, πολύκλητοι δ' ἔσαν ἄνδρες

is doubly faulty in its use of ἔσαν, and of ἦεν within the verse. It is also irrelevant, for the point of the simile is the loudness of the Trojan outcries; and for that it does not matter whether they are in one tongue or in many. There are Trojan allies in the *Urilias*, but they fall far short of the manifold throngs pictured in our poem.⁷ To introduce this later idea is the purpose of the added lines, and their excision is a gain.

The remaining difficulty is the occurrence of ἦεν within

H 246 ἀκρότατον κατὰ χαλκόν, ὃς ὄγδοος ἦεν ἐπ' αὐτῷ.

But Deecke⁸ has already seen that this line must be removed for entirely different reasons. Only without it does the story run smoothly:

245 καὶ βάλεν Αἰάντος δεινὸν σάκος ἑπταβόειον.

247 ἔξ δὲ διὰ πτύχας ἦλθε δαΐζων χαλκὸς ἀτειρής
ἐν τῇ δ' ἐβδομάτῃ ῥινῷ σχέτο.

With the interpolated line either the eighth bronze layer is not counted, or the spear stops in the next to the last layer. Either alternative is obviously bad.⁹

⁷ Cf. Robert 369, 455, 502.

⁸ De Hectoris et Aiacis certamine singulari 58–61 (Göttingen, 1906).

⁹ However, I would not follow Deecke in removing also H 222–3. The shield of Ajax was, like other Mycenaean shields, of leather ornamented with bronze. Whether this caused the poet to speak of it as *χάλκεον* (= *χαλκῷ παμφαῖνον*) or whether this epithet has been substituted for some other, may be left as an open question. At a later time some one familiar with bronze shields lined with leather (cf. Robert, *Studien* 7, on Sarpedon's shield), turned this ornamentation into a layer of bronze. But he needed to do no more than change one hemistich, if the original ran:

Αἴας δ' ἐγγυθεν ἦλθε φέρων σάκος ἥτε πύργον,
χάλκεον ἑπταβόειον ὃ οἱ Τυχίος κάμε τεύχων,
σφυτοτόμων δ' ἄριστος, "Τλῆ ἐνὶ οἰκίᾳ ναίων
ὃς οἱ ἐποίησεν σάκος αἰόλον ἑπταβόειον
ταύρων ζατρεφένων, πόλλος δ' ἐπελήλατο χαλκός
and not ἐπὶ δ' ὄγδοον ἦλασε χαλκόν.

The fit sought can then be obtained. All that is necessary is to remove from the Urilias three lines, the removal of which is for other reasons highly desirable.¹⁰ To put it differently: apart from the obviously interpolated H 246, the only trouble is occasioned by an unnecessary couplet that stands immediately before a recognized interpolation.

When speakers of Ionic take over poetry of the *x*-dialect they will at this early period have to allow ηs to stand in thesis, and in arsis when a consonant follows, but may substitute for it $*\epsilon\epsilon\nu$ in arsis before a vowel.¹¹ The result of this and many other similar changes is a *Kunstsprache*. When attempts to compose new poems in it are made, speakers of Ionic will be tempted by their daily speech-habits to introduce some of the following changes: (1) $\eta\epsilon\nu$ used freely in any part of the verse; (2) $*\epsilon\epsilon\nu$ scanned as an iamb before a consonant;¹² (3) $\xi\sigma\alpha\nu$; (4) $\xi\sigma\kappa\epsilon$. Here may be mentioned also a form of the 1st sing. $\xi\tilde{a}$ from ηa by metathesis.¹³

An examination of the Iliad shows a second stratum in which these forms appear, but examples of the after-effects of $\eta\nu$ are not yet visible. Unfortunately $\eta\nu$ itself can never be detected since it may always be a modernisation of ηs or $*\epsilon\epsilon\nu$.

The stratum includes all the poems placed by Robert before his second Iliad. The Teichoskopia has $\eta\epsilon\nu$ 'Οδυσσεύς (211), iambic $*\epsilon\epsilon\nu$ (180), $\xi\sigma\kappa\epsilon$ (180). The oldest parts of the Exploits of Diomedes have iambic $*\epsilon\epsilon\nu$ (70, 801), $\xi\sigma\kappa\epsilon$ (536), $\xi\tilde{a}$ (887), to which the Tlepolemus episode adds $\eta\epsilon\nu$ $\epsilon\tau\alpha\iota\pi\omicron\varsigma$ (695). The Sarpedon episode, II 419–683, has $\eta\epsilon\nu$ $\acute{\alpha}\nu\alpha\kappa\tau\omicron\varsigma$ (464) and $\xi\sigma\kappa\epsilon$ (550). The $\epsilon\kappa\tau\omicron\pi\omicron\varsigma$ 'Αναλπεσις (Robert 503–30) has $\eta\epsilon\nu$ $\epsilon\tau\alpha\iota\pi\omicron\varsigma$ (Σ 251) and $\xi\sigma\alpha\nu$ (Φ 236), to which the *Alveίου* 'Αριστρία adds $*\epsilon\pi\epsilon\epsilon\nu$ as an anapaest (Σ 276). The *Τειχομαχία* has $\eta\epsilon\nu$ $\acute{\alpha}\nu\tau\eta$ (338), iambic $*\epsilon\epsilon\nu$ (10, 337, 447), and $\xi\sigma\alpha\nu$ (89 = 197).

A new factor was the rise in spoken Ionic of $\eta\nu$, probably by contraction of $\eta\epsilon\nu$.¹⁴ In older poems it replaced ηs and $*\epsilon\epsilon\nu$ scanned as two short

¹⁰ It is of interest historically that $\eta\epsilon\nu$ was a form for which Bechtel could find no satisfying explanation. His frank exposition of the difficulty (*Vocalcontr.* xi) has been unduly magnified, even by scholars as great as Meister (HK 109) and Nilsson (*Homer and Mycenae* 9).

¹¹ Later, of course, both will be replaced by $\eta\nu$ in the modernizing of the text.

¹² Later this will be modernized into $\xi\eta\nu$.

¹³ The Odyssey (ξ 222, 352) seems to have $\xi\tilde{a}$ which may be an analogic remodeling of this after other forms of the 1st person in $-a$, or made directly from ηa on the analogy of unaugmented and augmented forms. The metre, however, does not positively exclude $\xi\tilde{a}$; the explanation of the latter form is due to Meister.

¹⁴ So Hermann, but cf. Meister 108.

syllables. Under its influence **εεν* was remodelled to *ξην* which needed no longer to be placed before a consonant. Then some such proportion as *ξην* : *ξην* = *ησθα* : *x* yielded a form *ξησθα*. The examples of these forms come from the *Odyssey*¹⁵ and from the latest parts of the *Iliad*:¹⁶ *ξην* (metrically secure) γ 180, δ 248, η 291, θ 116, λ 469, ο 361, τ 530, χ 25, ω 17, 104, Β 687, Κ 351, Χ 410, Ω 499, 630; *ξησθα* π 420, ψ 175, Χ 435.

Because of the limitations on its position *ξην* is to be considered a metrical lengthening of *ξην*, the writing being influenced by other forms such as *ξην*, *ησθα*, *ησαν*. It is found in the *Odyssey* (π 283, ψ 316, ω 343), always at the beginning of a line, and always before a vowel. At Λ 808 it stands at the head of the line, but before a consonant, so that *ξην* can and should be read.¹⁷ A papyrus (Bethe, *Homer* 2.190) gives an example from the close of a verse, *ἐπεὶ ἦ μάλα μοι φίλος ἦν*, in what may be a fragment of some cyclic poem. This has generally been emended and probably correctly, since it is an imitation of Α 381 *ἐπεὶ μάλα οἱ φίλος ἦεν*, but there is the possibility that the author was selecting a rarer, more exquisite form.

A set of alternant forms *ἐκτανεν*, *ἐκτανε*, *ἐκταν'* may be considered regular. For 'was' a similar set existed in the *Kunstsprache*, but it was suppletive in its construction *ἦεν*, *ἔσκε*, *ἦς* (*ἦν*). In the *Odyssey* and in later parts of the *Iliad* there is evidence for the development of another set *ἔσκειν*, *ἔσκε*, *ἔσκ'*. Thus, while the examples of *ἔσκε* are divided evenly (17 : 15) between the poems, *ἔσχ'* is found only in β 346, *ἔσκειν* in Ζ 19, 153, Α 669, Ρ 584, β 59, θ 284 (but *Ludwich ἔστιν* with most MSS), λ 394, ξ 222 (but *ἦεν* in quotations), ρ 538, φ 94, 283, χ 126. Since the *Odyssey* is much shorter than the *Iliad*, the use of *ἔσκειν* is two to three times more frequent. We are of course entirely dependent on the MSS in this matter; and it may be noted that those of the *Iliad* fluctuate between *ἦεν* and *ἔσκειν* in no passage.

Finally¹⁸ there is the 1st sing. *ἔον*, Α 762 (bis), Ψ 643, an analogical

¹⁵ Cf. Meister 108. From the examples in the *Odyssey* may be subtracted η 291, θ 116, λ 469, ω 17, if one believes that they are instances of **εεν* f-.

¹⁶ In his introduction to X Leaf wrote: 'We shall find abundant reason for holding that the Ransoming of Hector in Ω is a late part of the *Iliad*; the last scene of this book, 405-515, is an introduction to Ω and may almost be called a part of it'. The occurrence of *ξην*, *ξησθα* seems to me to furnish strong corroboration so that I do not hesitate to class the close of Χ as late. A similar view was taken by Robert, and opposed by Wilamowitz. I erred in siding with the latter in my review, *AJP* 42.277-8 (1921), to which I must refer for an indication of the importance of the question.

¹⁷ It is the reading of some MSS. Calling the line an interpolation was a slip on Meister's part.

¹⁸ There is no need to comment on *ἔσκον* H 153.

formation to **εεν*. On account of its origin it must be considered evidence for Ionic influence.

G. M. BOLLING

OFR. *ainz*, *anceis*; ITAL. *anzi*

Authorities differ considerably with regard to the derivation of OFr. *ainz*, Ital. *anzi* 'before (prep.), rather (adv.), before (conj. with *que*, *che* respectively)', and OFr. *anceis*, *ainceis*, *ainçois* 'beforehand, previously (adv.)'. It is our purpose here to essay a definitive etymology for these forms.

Ainz and *anzi* are clearly connected with Lat. *ante* 'before (prep.)' and *anteā* 'before (adv.)'; and hence obviously related to Prov. and Cat. *anz*, *ans*, Span. and Port. *antes*, with which they share much the same range of meanings and uses. The latter group, however, offer no difficulty in their derivation (*ante* + *s*), whereas the OFr. and Ital. forms cannot be derived directly from either *ante* or *anteā* (see below), and therefore form a group apart.

It has long been evident¹ that *anzi* must be derived directly from the same VL source as *ainz*, not imported into Italy as a Gallic loan-word.² The various etyma which have been proposed are, however, all unsatisfactory from the point of view of one or both languages:

1. *Ante* + initial vowel of following word³ will not explain the *-i-* in the OFr. form (since even tonic *a* followed by nasal + non-palatal consonant does not develop a following *i*⁴), nor yet the *-z-* in either language, since *ante* + initial vowel of following word > *ant-*, cf. OFr. *antan* < *ante annum*.

2. *Anteā* in unaccented position⁵ would have given OFr. **ance*, Ital. **anza*, both unattested.

3. **Anteī(d)*⁶ is unlikely from the Latin viewpoint, and *-ē-* would simply return to *-ē-* in VL.⁷

4. **Antiē*⁸ would have given Ital. **anze*, which is unattested, and

¹ As first pointed out by Gröber, ZRPh 6.260 n.

² As maintained by Bartoli, Vollmöllers Jahresbericht 11.1.147.

³ Wartburg, FEW 1.100; Meyer-Lübke, REW 494.

⁴ Cf. Nyrop, Grammaire historique de la langue française 1. §219 (Copenhagen, 1911).

⁵ Haberl, ZFSL 36.1.303 f.

⁶ Gröber, ZRPh 6.260 n., 10.174 ff.

⁷ As pointed out by Gamillscheg, Etym. Wb. der frz. Spr. 22.

⁸ Schuchardt, ZRPh 15.237 ff.

there is no corroborating evidence to show an umlauting influence of \bar{e} across $-nt\bar{i}-$ in OFr. (see below).

5. **Antius*⁹ is the most satisfactory and the most generally accepted of the etyma proposed to date, with reference to OFr. *ainz*. It is clear (from the evidence of $-ant\bar{i}a >$ OFr. $-ance$, Ital. $-anza$, etc., and of **abantiat* $>$ OFr. *avance*, Ital. *avanza*, etc.) that *a* before nasal + $-t\bar{i}-$ does not develop as before a free nasal. Hence in the case of *ainz* (as also in *noinz* $<$ *nuntius*), the OFr. $-i-$ must be ascribed to the umlauting influence of some vowel beyond the $-nt\bar{i}-$, and plausibly that of $-u$.¹⁰

But **antius* will not explain Ital. *anzi*, which is the older form, even though a sporadic secondary *anzo* is to be found in some North Italian texts.¹¹

Hence we must seek farther for another final vowel which might exert an umlauting influence across $-nt\bar{i}-$ in OFr., and at the same time give Ital. $-i$ directly. The answer lies to hand, of course, in \bar{i} itself, whose umlauting influence in OFr. is well known.¹² It is our contention that a VL **antēi* is the only form that will explain both the Ital. and the OFr. words satisfactorily. This formula was set up by Merlo¹³ for Ital. *anzi* only, but later unfortunately retracted by Merlo himself¹⁴ in favor of **antēis*, whose $-s$ is, as will be shown later, inadmissible.

The \bar{i} of **antēi* is probably to be explained as a direct substitution for \bar{a} in *antēā*;¹⁵ this explanation is simpler and more plausible than Merlo's original suggestion of *ante hīc*.

**Antēi* is thus justifiable from the Latin point of view; its $-tē-$ ($-t\bar{i}-$) explains Ital. and OFr. $-z-$; its \bar{i} gives a direct origin for Ital. $-i$ and also a vowel which could account for OFr. $-i-$ across $-nt\bar{i}-$.

That the etymon is to be set up as **antēi* and not **antēis* is shown

⁹ Thomas, Rom. 14.572 ff.; Richter, ZRPh 32.670 ff.; Gamillscheg, Etym. Wb. 22.

¹⁰ Cf. Schwan-Behrens-Bloch, Grammaire de l'ancien français 124 (Leipzig, 1932); Juroszek, ZRPh 27.691 f.

¹¹ Cf. Gröber, ZRPh 10.174 ff.

¹² As in OFr. *tuīt* $<$ **tottī*, also *vingt* $<$ *vīgintī*, *fis* $<$ *fēcī*, etc., cf. Meyer-Lübke, Grammaire des langues romanes 1. §§321 f. (New York, 1923, reprint); for its influence in the Italian dialects, cf. Salvioni, Effetti dell' $-i$ sulla tonica, Arch. Gl. It. 9.235-48.

¹³ ZRPh 31.163.

¹⁴ AASTorino 43.624.

¹⁵ In accordance with Grandgent's theory of 'adverbial \bar{i} ', From Latin to Italian 51 f. (Cambridge, 1927), preferable to other theories of the origin of Ital. $-i$ in adverbs, e.g. Meyer-Lübke-Bartoli-Braun, Grammatica storica della lingua italiana 57 (Torino, n.d.).

by the Romance adjectives built on a base **anzi*:-¹⁶ OFr. *anci-ien*, Ital. *anziano*, Span. *anciano* 'old'. This stem must have had a final *-i* (with *-i* we should have had OFr. **ancien*, Ital. and Span. **anzano*), and semantically there is no reason why it should not be identified with our **antei*. This consideration removes the possibility of a form ending in *-s* as an admissible etymon for *ainz* and *anzi*.

OFr. *anceis* 'beforehand, previously' (with by-forms *ainceis* and later *ainçois*, whose *-i-* probably comes from the associative influence of *ainz*) is clearly related to the forms discussed above. Four etyma have been suggested: *ante ipsum*,¹⁷ **antius*,¹⁸ **antīdijus*¹⁹ and *antīdijus*.²⁰ The first, although it has the merit of explaining OFr. *-c-*, is inadmissible on phonological grounds (*i* in checked position will not give *ei*²¹); the second is unlikely because of the unwonted displacement of accent.²² The third and fourth, representing a later and earlier stage respectively, are the most acceptable. The form **antīdijus*, to be preferred from the Latin viewpoint (see below), would have given OFr. **anteis*; hence influence from **antēi* or its successor *ainz* at some period is to be assumed to account for the substitution of *-z-* for *-t-*, and for this reason Schuchardt set up the formula **antīdijus*.

The termination of the last two forms mentioned above is usually interpreted²³ as an analogical development of a comparative ending *-dijus* (OFr. *-eis*) on the model of *sordīdijus* : *sordidus*. It is preferable, however, to interpret **antīdijus* as a comparative in *-ius* directly on the old secondary stem *antīd-* to be seen in *antīdeā*, *antīdhāc* and forms of the verb *antīdeō*.²⁴ Since this assumption gives us another, and much

¹⁶ Cf. Meyer-Lübke, *Gramm. des langues rom.* 2. §449. Conversely, our explanation of the origin of the stem *anzi-* obviates the necessity of Meyer-Lübke's roundabout explanation of its formation (as originally **antidianus* on the model of *cottidianus*). Likewise, **prope-anus* (> Fr. *prochain*) can have been a direct formation on the adverb *prope*.

Meyer-Lübke's later suggestion (REW³ 494), that *ancien* was a learned word, is hardly acceptable, in view of the It. and Sp. cognates, particularly since the latter show a peculiarly popular semantic development 'of former times > old, aged (of persons)'.

¹⁷ Diez, *Wb.* 503.

¹⁸ Thomas, *Rom.* 14.572 ff., 17.95 ff.

¹⁹ Schuchardt, *loc. cit.*

²⁰ Meyer-Lübke, *ZRPh* 11.250 ff.

²¹ Thomas, *Rom.* 14.572 ff.

²² Gröber, *ZRPh* 10.174 ff.

²³ Meyer-Lübke, *ZRPh* 11.250 ff.

²⁴ Walde-Hofmann, *Etym. Wb. der lat. Spr.* 52; Neue-Wagener, *Formenlehre der lat. Spr.* 2.823 (Leipzig, 1902-5).

OFr. *posteis* 'afterwards, later' may likewise have been derived directly from a

more common, case of *-īdīus* > OFr. *-eis* unconnected with analogical formations, in addition to *sordīdīus*, the form **untīdīus* > **anteis*, *anceis* may itself have played a rôle in the further diffusion of *-eis* as an adverbial comparative ending in OFr.

The history of the group discussed in this paper is, therefore, approximately as follows: *anteā* was replaced in VL by **anteī* (and no other form), giving regularly Ital. *anzi*, OFr. *ainz*; and on the stem *antīd-* a comparative *antīdīus* was constructed, which would normally have given OFr. **anteis*, but which was changed under the influence of *ainz* (or its predecessor **anteī*) to *anceis* and *ainceis*.

ROBERT A. HALL, JR.

PORTUGUESE, SPANISH *Cisco*, *Ciscar*

The etymon *cinisculus* > Portuguese *cisco* 'charcoal-dust', suggested by C. Michaëlis de Vasconcellos,¹ is accepted by Körting² without comment. Meyer-Lübke³ properly questions this etymon because of phonological reasons.

Rice⁴ suggests that Spanish *cisco* 'charcoal-dust' is a postverbal derivative based on *ciscar* < **fiscare*. This solution offers difficulties from the phonological, historical, and semantic point of view. Rice justifies the change of *f-* > *c-(e, i)* by the phenomenon of acoustic equivalence. It must be noted, however, that this phenomenon may occur when *c-(e, i)* has the value of a voiceless interdental continuant (*θ*).⁵

In examining the history of the Spanish voiceless interdental continuant (*θ*), we find, to quote Bourciez:⁶ *Le ts (c + e, i) de la période romane, p. ex. dans cervo, ciervo, s'est réduit à s en portugais vers le XV^e siècle; il est resté un peu plus en espagnol, mais vers la fin du XVI^e siècle est passé à la fricative interdentale θ. Old Spanish ç was pronounced s (a voiceless alveolar continuant) by Judeo-Spaniards at the time of their expulsion (1492), and is so pronounced by them today. Thus we find that the counterpart of Modern Spanish *cisco* is pronounced *sisco*, *siſco*, *siſcu* and *šiſcu* in the various Judeo-Spanish dialects. Modern Portuguese *cisco* is pronounced *siſcu*.*

**postīdīus* : *postīdēā*, etc., thus eliminating another of the troublesome suppositions of analogical influence.

¹ Revista Lusitana 3.140.

² Latein-romanisches Wörterbuch², no. 2195.

³ Rom. etym. Wörtl.³ no. 1929.

⁴ LANGUAGE 8.144 (1932).

⁵ T. Navarro Tomás, Pronunciación española³ §92 (Madrid, 1926).

⁶ Éléments de linguistique romane² §336 (Paris, 1923).

The inevitable conclusion that must be drawn is that *cisco* or its Old Spanish counterpart *çisco* existed before the advent of the voiceless interdental continuant θ ; and, therefore, to have recourse to acoustic equivalence to justify Latin $f \rightarrow c-(\theta)$ is running counter to the historical evidence presented. Certainly no possible doubt can be cast on the validity of this statement, if we examine the Modern Portuguese equivalent *cisco* (pronounced *sišcu*), which cannot possibly derive from **fiscare*.

From the semasiological point of view, obstacles are again met. It would be difficult to accept Rice's contention that *cisco* is a postverbal derivative of *ciscar* < **fiscare*, particularly since the evidence to be presented would point to an opposite conclusion. The primary meaning of *cisco* in Spanish, Judeo-Spanish, and Portuguese has no relationship either to *fiscus* or **fiscare*. Thus we find in the Monastir dialect of Judeo-Spanish: *¿A óndi va il šišcu? A la carvunere*. 'Where does the charcoal-dust go? To the charcoal-bin'. *Il oru va a la haziné, y il šišcu a la carvunere* 'Gold goes to the treasury, and charcoal-dust to the charcoal-bin'.⁷ In Portuguese we find *cisco* defined as follows: *o pó do carvão; as cinzas misturadas com materias terrosas e fragmentos de carvão*⁸ 'charcoal-dust; ashes mixed with earthy stuff and fragments of charcoal'. The Spanish Academy Dictionary⁹ discloses the following: *cisco- carbón mui menudo, o residuo, que queda de esta materia, revuelto con algo de tierra en las carboneras, donde se encierra*. As for the usage of the word it cites: *Porque aquel, que se quería casar con la moza, tenía oficio de herrero, y andaba lleno de cisco* (Guevara, Epístolas Familiares); *Mi oficio es lavar y blanquear los lienzos, y tu ejercicio todo es entre carbón y cisco* (Padre Juan de la Parra, Luz y Verdades Cathólicas). The latest Academy Dictionary¹⁰ gives the following: *cisco- carbón muy menudo; ciscón- restos que quedan en los hornos después de apagados; cisquera- lugar donde se almacena el cisco; cisquero- el que hace cisco o lo vende; muñequilla hecha de lienzo, apretada y atada con un hilo, dentro de la cual se pone carbón molido, y sirve para pasarla por encima de dibujos picados, a fin de traspasarlos a alguna tela o a otro papel*.

⁷ M. A. Luria, Judeo-Spanish proverbs of the Monastir dialect, *Rev. Hisp.* 81. 257-262 (1933).

⁸ *Dicionario contemporaneo da lingua portugueza* (Lisbon, 1911).

⁹ *Diccionario de la lengua castellana compuesto por la Real Academia Española* (Madrid, 1726-1736). This is the so-called *Diccionario de Autoridades*.

¹⁰ *Diccionario de la lengua española compuesto por la Real Academia Española* (Madrid, 1925).

Usage and the definitions given above leave the predominant concept of 'charcoal-dust', 'cinders', or words associated with 'charcoal' or 'cinders'. It is significant to note that the *Diccionario de Autoridades*¹¹ defines *cisco* in Latin as *pulvis carbonarius*.

In view of the foregoing, there suggests itself the etymon [*pulvis*] **ćniscus*. To the stem *ćn-*, is added the adjectival suffix *-iscus*, thus giving **ćniscu* > **ćniscu* (by dissimilation) > **ćn'scu* > *cisco*.

The figurative and familiar meaning 'uproar, row, hubbub' for which Rice offers no semasiological explanation may possibly be explained by the relationship of *cisco* to Latin *cinis*. *Cinis* in a figurative sense may be employed as an emblem of 'destruction, ruin, annihilation',¹² with which may be associated 'a quarrel, dispute, or even war with its attendant uproar and hubbub'. It would be interesting to add, too, that Latin *pulvis* may convey the figurative meaning of 'a place of contest, arena, lists'.¹³

The verb *ciscar* would naturally derive from *cisco*. We find that *ciscar* in Portuguese is defined: *alimpar a terra que se vae arar, dos gravetos e ramos a que se lançou o fogo*¹⁴ 'to remove from the soil, which is going to be plowed, twigs and branches which have been set on fire'. Here we find once more the association with burnt branches or charcoal. Portuguese and Spanish *ciscar* with the meaning 'to soil, to dirty' finds an analogy in English *smut* 'a spot of dirt or soot', and *to smut* 'to blacken, to soil'. Finally *ciscarse* with the meaning 'to loosen or evacuate the bowels' finds a parallel in the English euphemism 'the child soiled itself', the obvious implication is that the child 'loosened or evacuated its bowels'.

MAX A. LURIA

OLD AND DIALECTAL SPANISH *muncho*, PORTUGUESE *muito*

Muncho 'mucho' is found in Old Spanish, Judeo-Spanish, and in the popular speech of Spain and Spanish America. The corresponding form in current Portuguese is *muito* (pronounced *mũitu*¹⁵).

Among the explanations for the presence of *n* in Spanish and nasaliza-

¹¹ Op. cit.

¹² Harpers' Latin Dictionary (New York, 1907).

¹³ Ib.

¹⁴ D. Vieira, Grande dicionario portuguez (Oporto, 1873).

¹⁵ It is to be noted that in Trás-os-Montes and Melgaço *muito* is not nasalized. Cf. discussion by J. Cornu, Die portugiesische Sprache in Grundriss der romanischen Philologie 727 (Strassburg, 1888); J. Leite de Vasconcellos, Esquisse d'une dialectologie portugaise 110 (Paris, 1901).

tion in Portuguese, the following have been suggested by Menéndez Pidal: Otras veces, sin razón aparente se desliza un sonido entre los latinos; las letras señaladas son nasales y líquidas. He adds further: En la mayoría de estos casos la nasal añadida es un reflejo de otra nasal que hay en el mismo vocablo.¹⁶ Similarly Meyer-Lübke says: On a déjà montré . . . que dans beaucoup de localités une *n* et une *m* initiales de la syllabe nasalisent la voyelle suivante.¹⁷

In the absence of more tangible evidence, the explanations suggested would appear to be reasonable. It would seem, however, that the origin of the nasalization in *muncho* and *muíto* may be traced to Vulgar Latin. Grandgent¹⁸ cites the Vulgar Latin *muntu* < *multu*. *Muntu* apparently persisted in Portuguese as is evidenced by the current popular form *munto*¹⁹ (pronounced *muntu* or *mũtu*). It is very likely that *muntu* > *munto* must have existed also in Spanish. What probably took place was that both *mucho* and *muíto* < *multu* came under the influence of Vulgar Latin *muntu*, thus giving the forms *muncho* and *muíto* (*mũtu*).

MAX A. LURIA

¹⁶ Manual de gramática histórica española⁵ §69 (Madrid, 1929).

¹⁷ Grammaire de langues romanes vol. 1 §587 (New York, reprint 1923).

¹⁸ An Introduction to Vulgar Latin §289(2) (New York, 1907).

¹⁹ C. de Figueiredo, Novo dicionario da lingua portuguesa⁹ (Lisbon, 1913).

BOOK REVIEWS

Conférences de l'Institut de Linguistique de l'Université de Paris, III.
Année 1935. Pp. 56. Paris: Boivin et Cie., n.d.

The preceding volumes of this series were noticed in *LANGUAGE* 11.161-2; 13.76-7. The present volume, like the first, consists of three lectures. The first is by Edouard Pichon, on the *Structure Générale du Français d'Aujourd'hui*; with a foreword on the structure of the modern languages of Europe, by Antoine Meillet. Pichon calls attention to the fact that linguists no longer assign to the inferior classes the preponderant rôle in the formation of languages, since in all languages of civilization the dominant classes have a capital importance, in speech as well as otherwise. He goes on to speak of the main features of modern French, as distinct from those of an earlier period: unstable phonemes, the continuity of the spoken chain, the ictus, the clarity of the unaccented phonemes, phenomena of nominal number, new uses of articles and pronouns, the verb and its (expressed or implied) pronominal subject, etc.

The second lecture is by Oscar Bloch, on *La Dialectologie Gallo-Romaine*; after a brief history of the theme, he shows the need of intensive studies in many portions of the field, which he emphasizes by examples of his own gathering.

The third is by Albert Dauzat, on *La Toponymie Française*; he deals with its history, its methods, its results, and makes plain that it demands of the scholar a high proficiency not merely in linguistic methods, but also in history, geography, and archaeology: place-names are deceptive material.

The three lectures repay a careful reading.

ROLAND G. KENT

Atlante linguistico etnografico italiano della Corsica. Introduzione. Pp. 229. By GINO BOTTIGLIONI. Pisa: Stab. Tip. 'Italia Dialettale', 1935. (*L'Ital. Dial.*, Suppl. I—Ser. II).

When the prospectus of Bottiglioni's magnificent atlas appeared in 1932 one was tempted to say 'c'est magnifique, mais ce n'est pas la guerre'. Yet within five years there have appeared five of the ten volumes of two hundred maps each that will complete the work on the

same scale that was originally planned; and also, two years ago, the introductory volume that is the subject of this review. Those who have seen the maps already issued, or made any use of them at all, will agree that the work is indispensable to all serious students of Romance, and that it should be in every University library—such libraries which have not got it before this should subscribe to it at once. It is worthy of comparison with the great Jaberg-Jud or Gilliéron, and it emerges favourably from the comparison. Knowing, as we now do, that 'dialect geography furnishes the key to many problems', we are bound to welcome and support every piece of new and original work in this field that is well done. True, the situation is a little different when the area of study is geographically cut off so severely as a small island. But even so Corsican has its own dialectal variations, as Bottiglioni's maps clearly reveal; and it also has its long recognized agreements with Tuscan and northern Sardinian. Hence Bottiglioni did well to add to his forty-nine Corsican sites (Gilliéron had forty-four) not only two in northern Sardinia (one, Gilliéron), but also four others, one of them in Elba, the remaining three on the mainland of Tuscany, where the responses to his questionnaire serve to show both the similarities and the differences.

The introductory volume contains, among other things, a select bibliography, a brief exposition of the 'ragioni dell' opera', a list of each of the localities that have been investigated (regularly accompanied by short historical, geographical, and linguistic notes, frequently also by photographs); the questionnaire itself, which is but half a hundred short of two thousand items, and an account of the principles on which it was constructed; a statement of the system of phonetic transcription employed; an interesting chapter on the functions, training, and method of the collector of data for a dialect-atlas; a list of the individuals questioned, with such personal details as name (usually in transcription as well as in standard Italian spelling), age, occupation, sometimes with notes on their linguistic peculiarities, and also with photographs of many of them.

Bottiglioni's long devotion to Corsican studies has equipped him admirably for his task. Even the student of the ancient languages of the Mediterranean world has something to learn from him—witness his valuable study, *Elementi prelatini nella toponomastica corsa* (1929), which is all the more important since our other sources of knowledge of the pre-Latin stratum of speech are so slight and so imperfect. Seneca (dial. 12. 7. 9) tells us that to the original Iberian stock in the Corsican

population there had been added a Ligurian element. Hence it is possible that the ancient Corsican word *mufro* or *musmo* may have been of Ligurian derivation (cf. Fr. *mouflon*, and possibly even Sicel *momar*, cf. PID 2.148, 162, 165). Some of the ancient local names of Corsica appear to have comparable forms in Iberia. But there our knowledge ends, and it is a hazardous matter to attempt to extract more from the form that Latin has taken in Corsica.

Bottiglioni's practice, as set forth in his *Introduzione*, differs somewhat from that of Gilliéron and Edmont. Thus he has spent, in general, a longer time in each locality, and his reports aim at giving more accurately, or at least more fully, from several speakers, the patois of a district than the replies, in single words, of single individuals might be expected to do. His questionnaire is made up entirely of phrases or sentences, some of them of considerable length, and in this there can be only commendation for his procedure. Whether it was the part of wisdom to allow second thoughts and corrections on the part of informants and bystanders is a question to which the answer would appear to vary according to circumstances; after all we have most of us more than one way of saying (more or less) the same thing, as the versions of the original Italian form of the questionnaire (which Bottiglioni not unnaturally used instead of French), into English, German, and French indicate, sometimes rather amusingly. The English versions were furnished by Sigr. Edith Southwell-Colucci. She need not have hesitated between *basinfuls* and *basinsful*; but do we say (*cielo a pecorelle, acqua a catinelle*) 'a mackerel sky, water by basinsful'? That is not the English idiom in my native (Lancashire) usage, neither in that proverb, nor in an idiomatic rendering of such a phrase as *andar il sangue a catinelle*. Fortunately slips such as these (Bottiglioni himself corrects a number of them, 218, n.2, in the English, French, and German versions) do not directly affect the Corsican responses—but they do make one wonder.

J. WHATMOUGH

Die Eurasische Sprachfamilie: Indogermanisch, Koreanisch und Verwandtes. Pp. viii + 220. By HEINRICH KOPPELMANN. Heidelberg: Carl Winters Universitätsbuchhandlung, 1933.

The author first dealt with this theme in *Anthropos*, in 1928, in an article on *Die Verwandtschaft des Indogermanischen mit dem Koreanischen und der Ainusprache*; in the present volume, he includes also the Uralic and Altaic languages, Giliak and Sumerian. It was only when

his manuscript was with the publisher that he learned of Hermann Güntert's article, *Zur Frage nach der Urheimat der Indogermanen*, in the *Festschrift für Friedrich Panzer* (Heidelberg: Winter, 1930). Güntert had in fact, under the influence of Koppelman's earlier article and with the help of Eckhardt's *Koreanische Konversationsgrammatik*, made very definite formulations of the phonetic developments of IE and Corean from an earlier *Ursprache*. Koppelman's failure to know of Güntert's work may be excused by the remoteness of his teaching post, in Java, and the fact that Güntert's article appeared in a *Festschrift*.

Koppelman's thesis (2) is that the IE, the Ural-Altaic, and the Corean form branches of one primitive linguistic stock; and that if IE is to be connected with Hamitic-Semitic, the Hamitic-Semitic had diverged at a still earlier date. There seems to be a pre-judgment here; we need a sound decision on this problem before studying the other. Koppelman himself states (7) that scholars have not yet reconstructed the ancestral language of Sino-Tibetan, nor that of the Ural-Altaic languages; but unless such ancestral languages are available for comparison with primitive IE, the comparisons can be nothing more than experimental testings.

Koppelman, quite aware of these handicaps, proceeds with a sure method—so far as his material permits—and explicit mention of the criticisms to which his work may be subjected. My own reaction is that so many varied and difficult languages must be handled in this volume, that no one man can be sufficiently master of them to justify a study of this nature. (Thus [51] Koppelman states that in his citations from many languages he uses the orthography of his sources, though they are not consistent with one another.) For the author must virtually reconstruct his own *Ursprachen* as he goes along: a procedure fraught with uncounted pitfalls.

The introductory sections (1-24) are followed by a series of phonetic laws (25-53), formulating the correspondences between IE and Corean, sometimes also with Ural-Altaic and Giliak; sections on numerals (53-63), numbers and cases of nouns (63-90), negative particles (90-1), verbs including participles and verbal nouns (91-97), pronouns and personal suffixes of the verbs (97-131), tabulation of correspondence between IE and Corean (132-5), comparative vocabulary of the languages dealt with (136-202), addendum (202-6), bibliography (207-8; practically without mention of publishers and dates), indexes of words (209-20).

Koppelman is right (22) in objecting to the present tendency of Indo-Europeanists to make of every addition to the root a 'deictic particle'; such an attitude can be but a confession of helplessness. He speaks (44) of 'open and close *a*'; he means apparently 'palatal' and 'velar', since *a* is always open, and any variation from the norm, whether frontward or backward, is in the direction of closeness. The comparison of numerals does not seem to me at all convincing; though here we should expect to find some cogent arguments for the larger linguistic unity which Koppelman champions. He need not assume (89, with Sommer) that the *-k* of Gothic *mik*, *puk* is the **ge* seen in Greek ἐμέ-γε; nom. *ik* may have given the *-k* to acc. *mik*, whence it passed to *pu-k*. On the participles, Koppelman (91-4) assembles such a variety of original suffixes that with the permissible phonetic developments coincidences among the languages are inevitable and therefore hardly evidential. He takes (102) the ending of ἐφ' ἑρ' οὐ-μην as an old inherited form, though this is accepted as a new formation in Greek. In general, he stands by the old theory of derivation of personal endings of verbs from the pronouns, though this is now virtually abandoned in favor of the view that personal forms of the verb are merely nominal forms in specialized uses.

An interesting point is his endeavor (112, 127) to show that the first person pronoun originally meant 'the lower, younger' and the second person pronoun meant 'the higher, older': this is in accord with oriental etiquette, but entirely out of keeping with the Greek situation, in which the speaker became the 'first person' because he mentioned himself before the person addressed, the 'second person'.

The words in the lexical comparisons are so divergent as not yet to be convincing; perhaps we should accept this as inevitable, hoping that further work will make relations more precise and clear. The whole volume is interesting, though it reaches so far back into the past that results cannot be looked upon as definitive until the whole field has been worked over many times in detail, if even then. Koppelman himself almost admits this on page 7.

ROLAND G. KENT.

'Wahrheit' und 'Lüge' in den indogermanischen Sprachen. Einige morphologische Beobachtungen. By HJALMAR FRISK. (Göteborgs Högskolas Årsskrift XLI, 1935: 3.)

The author shows, by an examination of the various IE languages, that the word for 'truth' is regularly a substantival derivative from an

adjective, whereas the word for 'lie' is a primary formation from the verbal root. Witness Eng. *true* and *truth*, but *lie*; German *wahr* and *Wahrheit*, but *Lüge*; Greek *ἔρεός* and *ἀληθής*, whence *ἀλήθεια*, but *ψεῦδος*; etc. Latin has *vērus* and *vērītās*, but **mendā*, which must be inferred from *mendāx* 'lying'. Lith. offers some difficulty because of the lack of a common adj. for 'true', which is given by the abstract subst. *tiesà*, but this can be explained.

His conclusion is that 'truth' was a later intellectual or esoteric idea, usually developed from 'existent' (root *es-* or *yes-*), or 'obvious', or 'straight'; and that as the word for 'lie' varies in the IE branches, there was no identifiable word for this idea in the original speech. But may not tabu have tended to eliminate words for 'lie' and required them to be replaced by less unpleasant terms? Cf. the use of euphemisms in English for these ideas (*prevaricate* for *lie*, etc.).

Pages 35-9 contain an appendix by Georg Morgenstierne on the words for 'lie' and 'truth' in the Dard and Kafir languages.

ROLAND G. KENT

Entwicklung der Funktionen der lat. Kunjunktion *dum*. Pp. 111. By LINUS BRENNER. (Zürich Doctoral Dissertation.) Tübingen: Laupp, 1936.

The author has in the main followed the views of M. Leumann, TLL s.v. *dum*, and K. van der Heyde, Rev. Phil. 48.112 ff.; he has amplified them by a detailed exposition in which he uses 1035 citations from authors (Plautus to Horace) and inscriptions, indexed on 6 mimeographed sheets which are included with the printed work. A summary of his views is given on pages 106-10.

The subordinating use of *dum* developed from a paratactic *manedum*, *redeo* 'wait a while, I return', becoming 'wait, until I return'; so also in sentences with *tacedum* and *sinedum*. Here facts only are involved; but when the second action (becoming subordinate) was in the second or third person, it could not be expressed as a fact, and the subjunctive had to be used. The main uses of *dum* can now be divided into three, contemporal, conterminative, inclusive. *Dum* contemporal 'as long as' indicated the equal extension of two durative actions. *Dum* conterminative 'until' is found when the two actions end at the same moment, but the main verb is durative and the dependent verb perfective. *Dum* inclusive 'while' is found when the action of the main verb is perfective and falls within the action of the durative dependent verb.

The peculiarity that *dum* inclusive ('while') requires the present

tense of the indicative, even where the main clause has past or future tenses, is explained on the basis that the present has here its durative sense, either time begun in the past and continuing into the present, or time begun in the present and continuing into the future. Observation is made (31 n.) of the fact that compounds of 'come' and 'go' in Latin, and elsewhere, easily have future meaning.

Dum 'provided that' introduces either a conditional limitation (as in laws), or an optative, in either of which the subjunctive is normal. The development of other uses is set forth in a manner that precludes adequate review in small compass; but the division into minor classes (pages 78-95) seems to be carried rather too far. Let it be added that the subjunctive with *dum* 'until' is explained in detail on pages 38-44, as a 'prospective' subjunctive which typically depends upon the verb *expectare*.

Taken as a whole, the exposition is satisfying, and I am glad to congratulate the author on this contribution to the history of Latin syntax.

ROLAND G. KENT

A History of Modern Colloquial English. 3d ed. Pp. xviii + 433. By HENRY CECIL WYLD. New York: E. P. Dutton & Co., 1937.

The first edition of this work came out in 1920. A second edition was issued the following year; it differed from the first but slightly, except for the addition of a useful word-index. This edition was reprinted in 1925. The third edition, now before us, is an attempt to bring the book up to date. The text has not been revised, but by means of footnotes and six appendices additional material has been provided. Occasionally such material has been taken into the text itself, according to the prefatory note, but examples of textual change are few and far between. A supplementary index of three and a half pages makes the new material accessible for reference. All in all, the third edition is a good buy for anyone interested in the subject who does not have a copy of the first or the second, but owners of either of the earlier editions need not add the third to their shelves: the additional matter is not important enough to justify the purchase.

KEMP MALONE

The Synonyms for 'Child', 'Boy', 'Girl' in Old English; an etymological-semasiological investigation. Pp. xvi + 273. By HILDING BÄCK. (Lund Studies in English, II; Professor Eilert Ekwall, Editor.) Lund: C. W. K. Gleerups Förlag, 1934.

Miss Bäck, as her doctoral dissertation, has investigated the words used in Old English for 'child', 'boy', 'girl', of which the most important are respectively *bearn* and *cild*, *cniht* and *cnapa*, *fæmne* and *mægden*. In every instance she discusses the etymology, the variant meanings and their development from the presumed original meaning, the difference between their use in poetry and their use in prose. Under each important word a list of the meanings is followed by a discussion of each meaning, and citations of the original OE passages. The references to secondary literature are copious. At the end is a bibliography of modern studies and of original texts, and a list of abbreviations, with an index of the 208 OE words (including compounds and derivatives) treated.

The volume is a veritable encyclopaedia on its restricted field.

ROLAND G. KENT

The Ras Shamra Mythological Texts. Pp. 134. By JAMES A. MONTGOMERY and ZELLIG S. HARRIS. *Memoirs of the American Philosophical Society*, volume IV. Philadelphia: The American Philosophical Society, 1935.

This important work contains the text of five of the ritualistic poems in cuneiform script recently discovered by French archaeologists at Ras Shamra, anciently Ugarit, on the coast of northern Syria. Two further poems are treated by Montgomery in the *Journal of the American Oriental Society*, 56.226-31, 440-5. The originals of these and other Ras Shamra texts, edited chiefly by C. Virolleaud, have appeared in 'Syria' since 1929 and a large literature of phonetic, grammatical, and lexical interpretation and of historical comment is already before us. It is destined to grow rapidly in volume and importance, for these West Semitic texts of the 14th century B.C. are of fundamental value both to the Semitic linguist and to the culture historian of the Near East. Besides the transliterated texts of Montgomery and Harris we now have a number of other editions, among which may be mentioned the Hebrew one of H. L. Ginsberg (Jerusalem, 1936) and the German one of H. Bauer (1937). Perhaps the best introduction to the fascinating story of the decipherment of the Ras Shamra tablets, in which both French and German scholars shared, is H. Bauer's little work, *Das Alphabet von Ras Schamra* (1932).

The present work contains, in addition to the first five mythological texts to appear, a valuable section on the location and discovery of the Ras Shamra tablets, preliminary contributions to the phonology and

morphology of the Semitic dialect in which they are composed, material on the form and meaning of the texts as religious poems, a useful bibliography, and, most important of all, a glossary, with references, to all the Ras Shamra texts then known to the writers. Connected English translations have wisely been avoided, for the difficulties of interpretation are still numerous and there is great danger of a premature certainty induced by too great reliance on Hebrew parallels.

The transliteration in this and in Ginsberg's edition is into the familiar square Hebrew character. This is made possible by the fact that the Ras Shamra 'cuneiform' is not at all the standard ideographic and syllabic system of Accadian but a strictly alphabetic system of some thirty characters. Diacritical marks over the Hebrew characters serve to differentiate sounds peculiar to the Ras Shamra dialect; the non-committal X represents a sound whose phonetic placement is not clear (Ginsberg uses the Hebrew 'ayin with an added macron for this character). There is no doubt that this method of transliteration is a convenient one for the Semitist, particularly for the Semitist who approaches these materials with Hebrew as his preferred point of reference. The reviewer confesses to some dissatisfaction with the method, for he believes it is not as innocent as it seems to be. It unavoidably suggests phonetic identities or relationships which a closer study of the material may show to be illusory. It is to be hoped that scholarly usage will eventually agree on an adequate transliteration into Latin characters, such as is used in Bauer's edition. There is no reason why Ugaritic (Ras Shamra) should come to us with a Hebrew mask. It should be presented either with its own alphabet or in the type of transliterated form which the civilized world has agreed upon as conventionally acceptable. One suspects that Semitic linguistics has suffered not a little from 'litteritis' in the past. So far as possible, compared languages should be orthographically reduced to a common denominator. If some Semitists feel that the sequence *rkb* does not as unerringly suggest the root for 'ride' as does its equivalent in Hebrew or Arabic orthography, one can only say that they are making a needless virtue out of visual habits which are of no relevance for scientific linguistic research. Is it not reasonable to expect that scientific papers and monographs in the Semitic field, to the extent that they are not expressly devoted to scholarly purposes within a specific dialectic tradition (such as Rabbinics or Syriac literature or Islamic exegesis), should by common understanding content themselves with Latin transliterations? Tocharian is not presented to the scientific world in a

Dēvanāgarī-like transfer from the original Brāhmī script; it is not obvious why Ugaritic should be presented in a Hebrew-like transfer from the original alphabetic cuneiform.

Perhaps the most interesting linguistic fact about the orthography of Ugaritic is the use it makes of three distinct signs for the Semitic phoneme ' (glottal stop or aleph). These are by no means used interchangeably but differ according to the vowel that follows or precedes. '₁ is used with an *a*-vowel, '₂ with an *i*-vowel, '₃ with an *u*-vowel. Some have thought that the second sign could also be used when the glottal stop was not followed by a vowel, i.e. as final or when directly followed by another consonant, but it seems safest to assume that in such cases the choice of the aleph sign was determined by the preceding vowel and that the instances of final -a'₂ or of -a'₂- before consonants are due to a dialectic change of Semitic -a', -a'- to -e', -e'- (see Zellig S. Harris, A Conditioned Sound Change in Ras Shamra, JAOS 57.151-7), -'₂ (-'₂-) in these cases expressing an -e' (-e'-), a phonemic variant of -a' (-a'-) which is quasi-phonetically rendered '-i' (-i'-). Thus, r'₂š 'head' (Semitic *ra'su) is to be interpreted as re'su (cf. later Aramaic rēš-ā), not quite adequately rendered r(i)'š. Aside from these vocalic implications of the three alephs, vowels are not indicated in Ugaritic. As early Canaanite and Aramaic scripts represent only the consonants, it is obvious that if we can find Ugaritic test words with ', we are now in a position to make important inferences with reference to certain problems of West Semitic phonology and grammar in the 14th Cent. B.C. The most striking of these is the proof of the existence of nominative -u, genitive -i, and accusative -a in Ugaritic, exactly as in classical Arabic. The best test word is *ks* 'throne', Hebrew *kissē* < **kissi'u*; Ugaritic has nom. *ks*'₃ (= *kissi'u* or *kussu'u*), gen. *ks*'₂ (= *kissi'i* or *kussu'i*), acc. *ks*'₁ (= *kissi'a* or *kussu'a*). It is naturally important to show that the old Semitic case system survived in at least certain Northwest Semitic dialects of a later date than 1500 B.C. because our oldest Canaanite and Aramaic documents, mostly of a later age, give no clear evidence of this case system.

How are we to classify this new Semitic language? Opinions range all the way from accepting it as a Canaanite dialect peculiarly close to Hebrew-Moabite and Phoenician (in their Preface, Montgomery and Harris go so far as to speak of the Ras Shamra texts as 'cuneiform Hebraic texts', which is clearly claiming too much) to giving it an entirely independent position in the Semitic group, say midway between East Semitic (Accadian: Assyrian, Babylonian) and West Semitic

(Canaanite, Aramaic, Arabic, South Arabic, Ethiopic). Goetze, if I understand him rightly, gives Ugaritic this middle position and suggests an identification with 'Amorite', an important Semitic language which we know only through place names and personal names recorded in Canaanite (Hebrew) and Accadian documents. A suggestive phonetic law tending to support this theory is the change of Semitic \dot{d} (interdental voiced spirant) to Ugaritic d . This superficially suggests an Aramaic correspondence but the suggestion is unsound, for in the earliest Aramaic documents the phoneme is represented by the Canaanite sign for z (in Canaanite, as in Accadian, Semitic \dot{d} early became z) and it is only later that Aramaic has d ; Egyptian Aramaic of the fifth century B.C. writes both d and z for the phoneme in question, while Semitic d and z are consistently rendered d and z respectively in all Aramaic dialects of all periods. In other words, earlier Aramaic, having no sign for \dot{d} , which, like Arabic, it possessed as a distinctive phoneme perhaps as late as the fifth century B.C., merely used the Canaanite z as a second best orthography. It is therefore impossible to equate Ugaritic $d < \text{Sem. } \dot{d}$ with late Aramaic $d < \text{Sem. } \dot{d}$. On the other hand, there seems some evidence for Amorite $d < \text{Sem. } \dot{d}$. A case in point would seem to be the Amorite place name ' ēdrē^{z} ' occurring frequently in the Old Testament, which is probably cognate with Semitic $\text{*}dīrā^{\text{u}}$ 'arm', metaphorically 'strength' (Hebrew $zrōa^{\text{a}}$, Aram. $dērā^{\text{a}}$ - \dot{a} ; also with prothetic vowel: ' $ezrōa^{\text{a}}$ ', ' $ēdrā^{\text{a}}$ '- \dot{a}).

It is difficult to make up one's mind about the placement of Ugaritic in the present state of our knowledge because so many features of this dialect, both positive and negative, may be due to its age rather than to its dialectic affiliations. The lack of an article, for instance, as contrasted with Hebrew ha -, Aram. $-ā$, and Arabic al - does not seem particularly significant, for the partly prefixed, partly suffixed, articles of other Semitic dialects have all the appearance of being comparatively late dialectic developments, so that on this point Ugaritic is more likely to be archaic Semitic than, say, un-Canaanite. Again, it has been claimed that Ugaritic cannot be a Canaanite dialect because it does not share the characteristically Canaanite change of Semitic \bar{a} to \bar{o} . Had it undergone this change, we would have expected a preceding ' to be of type ' (as in ' 'either, or' = ' $\bar{o} < \text{Sem. } *au$ '), whereas it is actually ' that is used in such cases (e.g., fem. plur. of noun in $-i$: $-i\bar{t} = -i\bar{a}\bar{t}-u$, Arabic $-āt$ -, but Hebr. $-ōt$). But internal Canaanite evidence shows that this argument, like so many linguistic arguments that ignore chronology, is unsound. When we say that Sem. \bar{a} becomes Canaanite \bar{o} , we should

not necessarily mean that at the earliest stage of Canaanite this sound change had already taken place, but only that the actual Canaanite documents we possess (Biblical Hebrew, Moabite, Phoenician and Punic, Canaanite glosses in Tell el-Amarna tablets) show a darkening of Sem. \bar{a} to \bar{o} , Punic \bar{u} . We have then to determine whether this phonetic feature is a historically valid test for early inclusion of a given dialect in the Canaanite group or represents a convergent development or diffusion within the dialectic area (cf., for instance, change of Germanic $hr-$, $hl-$ to $r-$, $l-$ in all modern West Germanic dialects; it would be wrong to infer an early West Germanic $r-$, $l-$ in these cases, for documentary evidence proves that all early West Germanic dialects—Old High German, Anglo-Saxon, Old Saxon—still possessed $hr-$ and $hl-$). Now Hebrew consonantal orthography indicates that we must suppose for the earliest stage of Hebrew (a fortiori, for Canaanite in general) an \bar{a} (= Sem. \bar{a}) for later \bar{o} . Thus, Hebrew $r\bar{o}\bar{s}$ 'head' < older $*r\bar{a}\bar{s}-u$ < still older $*ra's-u$ is written $r's$, with etymologically justified '-'. In other words, the consonantal orthography of Hebrew goes clear back to a time when the word was still pronounced $*ra's-u$ (cf. Arabic $ra's-u^n$). It was only after $-a'$ had 'quiesced' to \bar{a} that this vowel, falling in with the large group of old Sem. \bar{a} -vowels, could become a 'Canaanite' \bar{o} . Hence, if $\bar{a} > \bar{o}$ is a test of Canaanite affiliation, consonantal Hebrew (e.g., $r's$), as contrasted with later vocalized Massoretic Hebrew (e.g., $r\bar{o}\bar{s}$), must be non-Canaanite! This would be as reasonable as to say that English *ring*, like German *Ring*, is 'West Germanic', while Anglo-Saxon *hring* (cf. Old Icelandic *hringr*) belongs to a 'Gothic-Scandinavian' stage or group of Germanic. The fact of the matter probably is that Sem. \bar{a} first darkened to \bar{o} in some specific dialect of Canaanite, say Phoenician, that this tendency diffused to Hebrew-Moabite quite early (as early, say, as the Tell el-Amarna period) but long after Hebrew had received a fixed orthography, and that northern dialects, such as Ugaritic, were not affected by the tendency.

The reviewer does not feel that he is competent to express an opinion on the proper classification of Ugaritic. He feels rather strongly, however, that it has too many distinctive features, both in phonology and grammar, to be classified as a member of that group of Semitic dialects which is illustrated by Hebrew. Even Hebrew-Phoenician seems too narrow a unit to include Ugaritic. On the other hand it is difficult to escape the impression that its affiliations are rather with Canaanite than with South Semitic, Aramaic, or Accadian. This may turn out to be illusory, however. Perhaps the future will establish a Canaanite-

Ugaritic (-Amorite) dialectic group, with features midway between those of Accadian and Aramaic-Arabic (specific Aramaic-Canaanite points of agreement being of later age and due to mutual borrowings). There is one important feature of noun morphology which Ugaritic seems to share with Canaanite and Aramaic and which may some day be thought to constitute crucial evidence for its dialectic classification. In both Hebrew and Aramaic 'segholate' nouns, i.e. nouns of stem form *qatl*, *qill*, *qull*, have an enlarged base, of type *qatal-*, in the plural (e.g., Canaanite-Aramaic sing., du. 'malk- king', pl. *malak-*; thus, Hebrew *malk-î* 'my king' but *mōlāk-îm* < **malak-îma* 'kings'). Ugaritic has *r'š* 'head' (probably = *re'su* < **ra'su*) but pl. *r'š-m*. This latter form is probably to be read *ra'aš-îma* (or *ra'aš-ûma*), cf. Hebr. *rōš* 'head' (*r's*) but *rāšîm* 'heads' (*r's-ym*); the Hebrew singular points to early **ra's-u*, as we have seen, while the plural points, in typical 'segholate' fashion, to early **ra'aš-îma*. It seems fair to assume that Ugaritic *mlk* 'king', pl. **mlk-m*, are, in parallel fashion, to be read *malk-u*, **malak-îma* (or **malak-ûma*).

EDWARD SAPIR

Elementi di Lingua Etrusca. Pp. 109. By MASSIMO PALLOTTINO. Firenze: Rinascimento del Libro, 1936.

The author in his Introduction proposes to present the results of Etruscan studies in a manner which will make them currently accessible to non-specialists in the field. He follows in substance, he says, the interpretative systems of Torp, Rosemberg, Cortsen, and Trombetti, though with reference to other scholars at appropriate points.

In the brief General Bibliography (9-10) we miss Fiesel's *Etruskisch* (1931), in the *Geschichte der indog. Sprachwissenschaft*, though it is cited in a footnote to page 13. The brief general Introduction (13-6) is followed by chapters on Phonetics (17-25), Morphology (27-65), Syntax (67-76), Texts (77-86), Glossary (87-109).

The account of the phonetics is very helpful, since it sums up the phenomena observed within Etruscan itself; for precision, we need explicit information of the relative age of variant spellings. Then the variation of *clan* 'son' nom. sg. with *clen-* in the forms with declensional endings, needs more interpretation than we find in §6 and §32. The possibility might be mentioned, that in *amfare* from *amphiare* 'Amphiaras' (§10) the consonant is palatalized but the sign of palatalization omitted in writing; this would explain many variations. Similarly there is a possibility that for example in *menle* (§25) 'Menelaus' the *l*

has the value of its name, [el], likewise the *n* in *elxsntrē* 'Alexander' (§24), et alia similia. The alternative is, and he gives this view (§22), that Etruscan, after the time of the older inscriptions, acquired a very strong stress accent on the initial syllable; but when he speaks of an earlier musical accent of pitch, I wonder if he regards Etruscan as by origin Indo-European.

The chapter on the Morphology is certainly the most convenient presentation of the subject that we have. But the section on numerals (§93) appears strange. Without presenting his evidence he ranges the ordinals, known from two dice, thus: 1 *θu(n)*, 2 *zal*, 3 *ci*, 4 *ša*, 5 *maχ*, 6 *hut huθ*. He quotes four other arrangements, all beginning with 1 *maχ*, and fails to give Skutsch's *maχ zal θu(n) huθ ci ša*, which is accepted by Fiesel, and seems to be the only convincing order. True, it implies that the opposite numerals on the dice are not arranged 1-6, 2-5, 3-4, but 1-2 3-4 5-6; but known Etruscan dice with numeral characters show this arrangement as well as the other. Then, to dispose of *muwalχls*, which is a multiple of 10 in the gen. case, without accepting a *mu(v)* as 7 or 8 or 9, he assumes that *maχ* may be from **muvaχ*. In this I cannot follow him.

The sections on verbs (§§98-114) give a clear exposition on the forms identified as verbal, and lists of the forms; but I miss an attempt to explain the well-known variation of the type *lupu* and *lupuce*, both meaning 'died', and apparently without any differentiation. Can the Etruscan verb not be in reality a participle, as it is in Turkish, to which a pronominal element may be optionally added? On the other hand, the asyndetic groups of 'verbs' in Etruscan show that the syntactic style is entirely different from that of Turkish.

The chapter on Texts, with interpretations, might have been better planned, by putting at the beginning the short sepulchral inscriptions that can be interpreted with certainty, and reserving for the end the selections from the Agram Mummy-wrappings, of which little can be made except that they give a religious ritual. As they stand, the easy inscriptions come at the very end, and the vagueness of meaning of the passages first given rather repels the student. The Glossary is useful, but of course contains only the words which are found in the grammatical chapters and in the texts here quoted.

Despite these criticisms, the volume is a very useful compendium in which the student can find much that it is almost impossible to locate elsewhere. It is the best aid which has yet appeared for the study of the Etruscan language.

ROLAND G. KENT

Le Secret du Texte étrusque de la Momie de Zagreb. Pp. xv + 154. By F. BUTAVAND. Paris: Adrien-Maisonneuve, 1936.

More than twelve years ago Butavand 'discovered' that the Etruscan text on the Agram Mummy-wrappings contained a translation of portions of the Odyssey. Why was this translated into Etruscan? Easy: Odysseus is but *ὁ Τυσσοός*, the Tuscan. Quid plura?

ROLAND G. KENT

NOTES AND PERSONALIA

THE FOURTEENTH ANNUAL MEETING OF THE LINGUISTIC SOCIETY OF AMERICA will be held at Chicago, December 27-28, 1937, jointly with the Modern Language Association of America, headquarters and sessions being at the Drake Hotel. There will be also one joint session with the American Philological Association in Philadelphia, at the Hotel Benjamin Franklin, on the afternoon of December 30, with possibly an informal gathering of members of the Society on the morning of that day, for members who cannot go to the Chicago meeting. The program of the sessions will be issued about December 1, and will be sent to all members of the Society, and to non-members on request directed to the Secretary.

THE AUTHORS OF A CENSUS OF FRENCH AND PROVENÇAL DIALECT DICTIONARIES IN AMERICAN LIBRARIES have printed a one-page Supplement of corrections and additions, which will be sent with all copies of the Census hereafter distributed; copies have been sent to the owners of copies already issued, so far as the record of sales permits.

THE INDIAN RESEARCH INSTITUTE of Calcutta plans to hold the Second Indian Cultural Institute in Calcutta, during the latter half of December, 1927. The twelve sections include the languages and philosophies of India, such as Vedic, Classical Sanskrit, Bengali, and also Zoroastrian, Arabic, and Persian, as well as other subjects.

A. V. WILLIAMS JACKSON, Professor of Indo-Iranian Languages at Columbia University, and a member of the LINGUISTIC SOCIETY OF AMERICA from 1928 to 1934, died at his home in New York City, August 8, 1937, at the age of seventy-five years.

He was born in New York on February 9, 1862, and pursued collegiate and graduate courses at Columbia University, receiving the degree of Ph.D. in 1886; immediately thereafter he became a member of its teaching staff, holding his highest title, Professor of Indo-Iranian Languages from 1895 to his death. In 1935 he had become Emeritus, though he continued his researches in Manichaeism. He was eminent especially in his studies of Persia and of Zoroastrianism. Six times he made journeys to Persia and India, receiving splendid attention from the Parsi communities of India, and in 1918 being decorated by the

Shah of Persia and receiving an honorary degree from the University of Teheran. In 1903 he made the dangerous climb of the Rock of Behistan, where he examined disputed passages in the great inscription of Darius; the only Occidental who preceded him in this climb was Rawlinson, who first copied the inscriptions.

He was a member of many scholarly organizations; he was Corresponding Secretary of the American Oriental Society for many years, and its President in 1914-15 and 1929-30. He was the author of numerous volumes and countless articles in his chosen field, on which his death inflicts an irreparable loss. But his many friends—and they are legion—will feel most keenly his loss as a personal one; few indeed are those who can manifest that personal charm, that gracious friendliness, that never-failing interest in others, which made us feel that here was a beloved friend upon whom we could always rely. Those of us who saw him less often than we should have wished, hold dear the memories of those associations.

ROLAND G. KENT

MR. IWAO TAKAI, of Tokyo, became a member of the LINGUISTIC SOCIETY in 1935. The news of his death in that same year has just come to the Society's office. No biographical data are available.

DR. FRANK PIERCE JONES has gone to Brown University as Instructor in Greek and Latin.

MR. JOHN PHELPS, of Baltimore, who has served as Consular Agent of France at Baltimore for nearly nine years, has, at his retirement from that position, been decorated by the French Government with the Cross of Chevalier de la Légion d'Honneur.

DR. MORRIS SWADESH has gone to the University of Wisconsin with a two-year appointment as Assistant Professor of Anthropology and Linguistics, with provision for research work on the Indian languages of the state.

THE FOLLOWING NEW MEMBERS FOR 1937 were received into the LINGUISTIC SOCIETY subsequent to the last published list, and up to September 8, 1937:

Chauncey Edgar Finch, Ph.D., Instructor in Classical Languages, St. Louis University, St. Louis, Mo.; *classics, Sanskrit, Slavic*.

Frank Pierce Jones, Ph.D., Instructor in Latin and Greek, Brown University, Providence, R. I.; *comparative syntax*.